FOR BUSINESS OFFICIALS OF COLLEGES • UNIVERSITIES & RESIDENT ACADEMIES •

College and University Business

SEPTEMBER 1947: Residence Halls for Women ★ Secrets of Successful Letter Writing ★ Trends in Enrollment, Fees, Salaries ★ Retirement Plans ★ New Power Plant ★ Controlling Food Costs

WHAT'S WRONG WITH COLLEGE ARCHITECTURE

HENRY L. KAMPHOEFNER
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IT HAS BECOME A COMMONPLACE THAT ARCHITECTURE through any great historical period has reflected the culture of the people of that period.

If the architecture of the American college and university of today reflects the culture emanating from the columned and ivy covered walls of 20th century American college buildings, then American education and American culture are in a dismal state indeed.

We have liked to think of our universities as centers of scholarship, yet the buildings enclosing their scholarly activities are a hollow mockery to scholarship.

Our greatest universities carry on their many activities in Gothicesque castles, Renaissance palaces and Colonial boxments, whited sepulchers of architectural sham and hypocrisy. College buildings of the past and present have been designed mainly for ostentatious display with a thought, if any, toward their appearance on colored picture postcards rather than as space shells to serve actual human needs. The imagination and creative abilities of capable men in the colleges and the architectural profession should be directed toward the development of real architecture to accommodate the living needs of the university rather than the continuation of banal romantic and sentimental obscenities that have disfigured the American campus of today.

One of our great universities recently climaxed two hundred years of architectural absurdities with what one of the country's leading architects calls a monstrous carnal house of the mind in the so-called collegiate Gothic style. The building is not Gothic, nor is it collegiate, nor is it a reflection of the university's academic processes. The great Frank Lloyd Wright justly calls another 30 story Gothicistic skyscraper university the "world's largest keep off the grass sign." As a dynamic force in the educational and cultural processes it is nothing more than that, for it devitalizes any creative effort that might be attempted within its walls.

Now that the American architect has made a hodgepodge of university buildings with an architectural eclecticism that has little to do with the activities going on within them, continuation of the dismal architectural failures of the past is encouraged by college administrators on the ground that an architectural tradition has been established, as though to say that we admit that the physical environment we have sanctioned in the past has been a negation of progress but that uniformity is more important than progress; therefore, it is now too late for progress. With less than a half dozen exceptions, no real architectural tradition has been established on an American campus. Most of our college architecture springs from a thoughtless borrowing of other people's little understood traditions. Tradition, and that includes architectural tradition, springs from the thought and actions of the people, indigenous to the material at hand—the climate and the structural technics available in modern times.

Architecture has been in the past, and can be again, a dynamic leading force in the life of the people. It can and should stimulate a new force on the American campus. Several decades of experiment are needed to bring good architecture to the campus of the American college and university. Our institutions invest millions on experiment and research in their classrooms and laboratories. Why not extend this manifestation of the desire for progress to the buildings that enclose their scholarly activities?

Distinguished contemporary architecture can be planned for the American college and university. In the hands of capable architects, the new architecture need not clash with the existing work already on the campus for, by sensitive handling of materials, color and textures, a greater harmony with existing work can be brought to the campus than ever has been achieved before.

College and University Business

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Among the Authors

STEWART HARRAL

STEWART HARRAL, director of press relations at the University of Oklahoma, has had a notably successful career in public relations and journalism. Prior to his present position, which he has held for eleven years, he had been director of the school of journalism at the university for two years, had served in editorial positions on three newspapers and had been director of publicity at Southeastern State College. Author of three books on public relations and more than 50 magazine articles, he was recently chosen by the N.E.A. to teach a graduate class in educational public relations at the National Institute of Organization Leadership in Washington, D. C.

ANNA M. TRACY

ANNA MAY TRACY, dietitian and professor of institution economics at Florida State University, is a former president of the American Dietetic Association and for several years served as a member of the executive board of that organization. As a sideline she enjoys music and "a garden that does not get enough attention." . . . JULIA FRANCES TEAR, associate professor in the school of home economics at Michigan State College, has specialized in decorating and furnishing women's residence halls. She was a member of the committee that planned the furnishings for the women's residence halls built at Michigan State in the 1930's. She has traveled extensively in the United States and in Europe.

CHARLES W. HOFF

CHARLES W. HOFF, financial secretary of the University of Omaha, has done considerable research in recent years in college enrollment trends and faculty salaries. Active in organizational affairs, he has been an officer of the Central Association of College and University Business Officers and is serving this year as vice president of the Educational Buyers Association. In earlier years he was an active member of the Junior Chamber of Commerce in Lincoln, Neb., and has continued an intense interest in civic affairs.

A. P. BEILMANN

AUGUST P. BEILMANN, arboretum manager of the Missouri Botanical Garden, has received national recognition for his work in the care of trees. He has written for professional journals and is credited with significant research in matters relative to tree growth and care. His hobbies: beekeeping and hunting. He is proud of his two sons and daughter and a "wonderfully patient wife who is never upset by extended hunting trips." . . . F. L. JACKSON, treasurer of Davidson College since 1913, is an active leader in college business circles. President of the Southern Association of College and University Business Officers in 1934-35, he held the same office in the Eastern Association in 1941-42 and was a member of the executive committee of the National Committee on Standard Reports for Institutions of Higher Education. A C.P.A., he is a member of the North Carolina State Board of Accountancy.

Looking Forward

U.M.T.—Musket for Atomic Age

LOUD AND FREQUENT IS THE BALLYHOO ABOUT universal military training. When one looks at the state of world affairs, this fact is not particularly surprising. The point at issue is whether the proposal submitted to Congress by the President's Commission on Universal Training represents the best solution of the problem.

An analysis of the proposed course of study for the "umptee" shows that a major part of his year's training is to be of an educational nature. The military aspect of weapon handling, military discipline and other phases strictly military in nature have been estimated by educational authorities to require a total of eight weeks' training. What happens to the other forty-four weeks in the year? For all practical purposes the "umptee" becomes a student in a federally operated educational system at a cost of $3,000,000,000 to the taxpayer. If the U.M.T. program is largely educational in nature, why not let the educators handle it? Last year's expenditures for higher education amounted to a billion dollars, one third of the anticipated annual cost of U.M.T.

Competition for faculty for this federally operated educational program will be in the same market in which colleges and universities are already bidding for talent at present (a market critically short in supply). Net result: colleges and universities will of necessity lower faculty standards.

Competent military personnel has stated that a technically trained cadre of specialists is more effective in an atomic age than millions of half-trained personnel who can "squads right" and salute properly. It is doubtful that the present U.M.T. proposal will achieve the objective of successfully developing an armed force of specialists.

Talk to your Congressman *now*. U.M.T. will be high on the priority list for consideration when he returns to Washington for the next session.

Trustees Must Be Trained!

WHAT MANNER OF MEN AND WOMEN GUIDE the destiny of your institution? Is appreciation of higher education's problems and its objectives of prime importance or is the checkbook potential of a prospective trustee the governing factor in his appointment?

An effective trustee is not acquired overnight. In order to become cognizant of an institution's purposes and problems a serious study of them should be mandatory.

One thing that might be done to assist the trustee in the performance of his responsibilities is to encourage his attendance at conventions or conferences dealing with problems of higher education. Another service is the referral to the trustee of pertinent literature dealing with higher education. Magazines, books, newspaper editorials help.

How would you rate your board of trustees; are they competent counselors, rubberstamp observers or rigid obstructionists? If the members seem to fall largely into the wrong categories, perhaps some training is indicated.

S-t-r-e-t-c-h-i-n-g Your Income $

IT'S A STRENUOUS JOB TODAY TO GET MONEY for college and university endowment. And when you succeed, what do you have to show for it? At present low interest rates, millions of dollars of endowment is needed to produce a comparatively few thousands of income.

For the same amount of effort expended but for substantially larger return on your acquisition, a program of soliciting current expense funds is recommended. A $50,000 endowment represents, at 2 per cent interest, an income of $1000. A $50,000 gift for current expenses represents $50,000 immediately available to the institution. If suitable recognition of the donor can be arranged in the latter instance, there is no reason for one $50,000 gift being more difficult to procure than the other.

To broaden the financial base, why not organize alumni and friends into an annual program of giving — of modest amounts, if necessary? If a donor contemplates a substantial gift, why not point out that he is rendering a more significant service in making the total gift payable over a period of years? For example, a $50,000 gift for current expenses over a five year period would mean $10,000 income annually for the institution as against one tenth that amount available as income if accepted as an endowment gift.

Procuring gifts for a college or university is hard work. Campaigning for gifts for current expenses will give you the maximum return for the effort at this time of low interest rates.

SAY SOMETHING *Interesting*

STEWART HARRAL
Director of Press Relations
University of Oklahoma

A CERTAIN COLLEGE PRESIDENT—let's call him Mr. Blank—had a letter program that other university heads dreamed about. His institution did not have a huge budget for public relations activities. Because of a limited staff, the school could not do as much field work as some universities. It could not do a lot of things done by "big time" schools to build good will. But it did have a successful letter program, one in which every letter mailed built friendship, cooperation, understanding and support.

How was it done? First of all, President Blank ran across a book telling how to write effective letters. He became so interested in the idea that he read other books. Three faculty members were named to a public relations correspondence committee. They read the books on letter writing and then asked for carbon copies of all kinds of letters that had been used by various departments. Two meetings followed, one for staff members and another for secretaries and other office personnel. Almost overnight the old letter program was discarded and in its place the school began the practice of making each letter count. Today, the college has more public support than ever before, mainly because of its excellent letter program.

Scores of colleges and universities have public relations programs of one kind or another but one essential phase is being overlooked or neglected by many: the use of personal letters to vitalize and personalize public relations. This medium is producing invaluable results for the relatively few institutions that are making the most of its possibilities. It can do equally effective work for others.

William H. Butterfield, noted authority on business communication, believes the personal letter is second only to the personal visit in its effectiveness as an instrument of public relations for colleges and universities. It has three big advantages that are combined in no other public relations medium: directness, economy and adaptability to the individual recipient.

"I've tried a lot of letters in my administrative career but they didn't do any good," a president told me. Then he said, "I'll send you a batch of them. Look them over and tell me what's wrong." After studing them it was easy to see how they missed the mark. They were lifeless, abrupt in language (even insulting at times) and each was written from the point of view of the prexy, NOT THE READER.

Many of today's college letters follow the style of the ox cart generation rather than that of the atomic era. Everything has been streamlined and brought up to date. Dig up an old magazine and notice the makeup. Then glance at a recent periodical and note the difference. What's been happening to most university correspondence? Well, to be frank, very little. Most of the letters are dull, too long and filled with moth eaten expressions.

Have you taken a good look at your outgoing mail lately? Are the letters as neat and attractive as they should be? You may find their physical form detracts from their effectiveness. Remember that your letters are good will ambassadors. They may represent ably and favorably your college. Are you proud of their physical appearance?

Above all, use language the recipient will understand. It is not likely that he is acquainted with the jargon of education. No matter what his station in life he will prefer short words rather than long ones. So you won't say "contemplate" when you mean "plan" and you shouldn't say "superabundance" when you mean "excess." See that your sentences and phrases are clear. Nothing is more disturbing to a reader than to have to figure out what a sentence or phrase means in a letter.

Have something to say! You are not writing letters just to kill time or be friendly. So you will say something that interests and fascinates the reader. Move over on his side of the fence before you start; discover what he is interested in, what he would like to do, why he might be interested in your letter. By knowing his way of life, his interests and problems you will have the key to the contents of the letter you are about to write.

Many university letters lack pep and spirit. If you are tired, indifferent or "in the dumps," those moods will

shine through your letters. Flavor your messages with enthusiasm and they'll have more reader interest.

Say everything you have to say but say it briefly! A lecturer on letter writing once asked an audience, "If words were dollars, how many of them would you waste?" Any reader resents any letter that requires him to wade through a mass of unnecessary verbiage simply because the writer was too lazy or careless to present his ideas concisely.

"Word wasters" are common. Several letter experts have estimated that the average letter carries at least 30 per cent excess weight in the form of unnecessary words. Extra words impair the efficiency of a letter. Almost three centuries ago Blaise Pascal displayed a knowledge of conciseness when he apologized to a friend: "I am writing you a long letter because I have not the time to write a short one." You can write a long, rambling letter with little or no forethought. On the other hand, a compact, well organized letter requires planning.

No sentence in your letter is more important than the first one. And yet this is probably the weakest spot in the structure of the average message. If the opening sentence says something interesting and significant the recipient reads on. But if the opening gets off to a slow start the attention of the reader may be lost. In fact, he may read the first sentence and then toss the letter into the wastebasket.

As you begin your letter, pick something for the opening that will attract the reader's attention and interest him. In other words, as Sherman Perry declares: "Put the reader in the letter right at the beginning." Remember: The beginning sentence or paragraph is your point of contact. Make it strong!

Above all, avoid the participial opening. It is so easy to start with "referring," "answering" or "replying." The moment you do this not only will you find it difficult to end your thought at a logical stopping point but you will use many extra, useless words.

"Should I try to be clever in my letters?" is a frequent question that comes my way. A certain amount of cleverness will strengthen the average letter, make it unique and interesting. On the other hand, when you are searching for a different way to express yourself you may stray too far from the point you're trying to make. Indeed, it is better to be trite than to be so clever that your thoughts are hidden.

Make each message complete. In each instance give your reader all the facts he will need in order to take the action you are trying to stimulate. You can easily defeat your purpose by omitting some necessary detail. Read the first draft of your letter and then ask yourself, "Have I answered all questions in the mind of the reader?" Any situation that justifies writing a letter at all justifies writing a complete one.

"YOU" V. "US"

Put your reader on a pedestal. Numerous books and magazine articles have emphasized the "you" attitude, the presentation of each message from the reader's point of view. But few college administrators follow this advice. Most of us still cling to the habit of telling our readers what WE want and just what they can do to help US.

You want the reader to do a certain thing for you. Right? Then you must tie this up to the thing he wants. It matters not whether you are trying to persuade him to help in a financial drive or serve on a committee or are asking him to attend homecoming. In each instance you want him to do something for you. Why should he? Only because the hope of doing it will bring him nearer his heart's desire. Study your reader. Find out what interests him. Then study your proposal and see how it can be made to tie in with that interest.

Every piece of college correspondence, regardless of its primary purpose, has two definite potentialities. It can be either a builder of good will or a source of antagonism. And yet universities mail hundreds of letters that are certain to irritate men and women who receive them. Often the offensive element is not the information conveyed but the *manner* in which it is conveyed. Without realizing this, scores of college staff members use distasteful words and phrases or make negative implications that are sure to stir the resentment of the average reader.

Knowing *what* must be said is only half the job of the letter writer; knowing *how* to say it is the other half. Test your letters on yourself. Do they contain irritating expressions, tactless statements? Or do they show the reader all the courtesy and consideration that you would like to receive if you were in his place? Always consider the effect of your words on the reader and you'll be more careful in your phraseology. Read over letters carefully to be sure that you've said what you intended, that no thoughts may be misinterpreted, that nothing is offensive BEFORE you send them.

No matter how effective the beginning and body of the letter, the final factor of importance is the closing sentence. Make the concluding sentence good because it creates the final impression. Whatever the purpose of your letter—to congratulate a student, to correct a misconception about your football coach, to thank a donor for a gift—always wind up your letter while its momentum is at the peak.

Letters, of course, can never substitute for the personal contacts of university staff members. But wisely used, they can strengthen the public relations program by building good will, support and cooperation. Write more effective letters and you will be amazed at the results.

Traffic Control . . .

. . . is becoming a major problem on many a campus as a result of record-breaking enrollment. E. B. Farris of the University of Kentucky will present some helpful solutions in next month's issue.

Trends IN ENROLLMENT FEES SALARIES

C. W. HOFF
Finance Secretary
University of Omaha

ACCORDING TO THE REPORT TURNED in at the 1947 meeting of the Central Association of College and University Business officers by 158 schools (representing an enrollment of 619,315 students) college enrollment is still increasing and will continue to do so through next year. Using 1940-41 as the base, or 100 per cent year, the 1946-47 average throughout the area is 164.8 per cent. In other words, there are 65 per cent more students in these 158 schools than there were in 1940. It is anticipated that this figure will go up another 15 per cent this year. State universities show an increase of 63.7 per cent; state teachers' colleges, 16.6 per cent; municipal universities, 133 per cent, and private colleges and universities, 66 per cent.

PEAK YEARS

College administrators have been faced with many estimates during the last two years as to what enrollment will be in the near future. Most of the questions asked in our survey dealt strictly with facts. We thought it would be interesting, however, to obtain the business officers' guesses regarding peak enrollment in colleges during the next few years. Sixteen responded that they expected 1946-47 to be their peak year. In almost every case explanation was made that they depended entirely on dormitory facilities and they had now reached their maximum capacity. Fifty business officers responded that they expected 1947-48 to be the top year; 31 indicated 1948-49 as their estimate; 43 seemed rather definite that 1949-50 would be the year of their largest crowd, and only two indicated a date after 1950.

TREND OF TUITION FEES

The detailed report includes a complete schedule of fees for 162 colleges and universities but an analysis of the trend of fees over the last ten years is interesting. One hundred thirty-three colleges and universities have already increased their fees since 1936-37. The average increase is 40.6 per cent, although the range extends from a low of 5 per cent to a high of 196 per cent. State teachers' colleges show the lowest average increase: 31.2 per cent since 1936; state universities second, with 39.4 per cent.

One hundred twenty-four colleges have increased their general fees since 1940-41. The average increase is 31.6 per cent. The range is from a low of 4 per cent to a high of 100 per cent. State universities show the lowest average increase since 1940, with a figure of 23.6 per cent. Municipal colleges run second, with an average of 25.8 per cent.

Ten state universities are increasing fees this autumn; four state teachers' colleges, two municipal universities and 51 private schools likewise have recently announced an increase in fees.

NONRESIDENT FEE TRENDS

For the purpose of this study, nonresident fee is interpreted to mean the extra amount paid by the student whose legal residence is outside the political boundaries supporting the school. This extra amount is for the same length of time as is the tuition and is in addition to that tuition. The fee applies only in public supported schools. Some schools use the terminology "equalization fee" to indicate that the student does not necessarily live outside the geographical boundary but that the person or agency responsible for meeting the expenses of his education is outside that geographical area and that this fee somewhat equalizes the difference between ordinary tuition and actual cost of instruction.

Fifty-two tax supported institutions reported as making this charge average $144.85 a school year (two semesters or three quarters). Twenty-eight have raised their nonresident fee an average of 172 per cent since 1936. The increase since 1940 is 145 per cent. Seven tax supported schools expect additional increases before 1950. Three institutions not now charging any nonresident fee expect to.

SALARY TRENDS

General salary trends have been upward in all employe classifications of the colleges. From 1940 through this year salaries of faculty and administrative officers have increased an average of 28.6 per cent in 155 schools. Because of their highly competitive status during the war years, office and clerical staffs have enjoyed a more rapid increase, an average of 33.3 per cent. Custodial and maintenance wages were still higher, 37.2 per cent. The law of supply and demand seems now to begin favoring the faculty, however, because the same schools report that an additional increase averaging 12.5 per cent will be given faculties in the year 1947-48 while only 10.3 per cent and 10.4 per cent increases will be given office and clerical staffs and custodial and maintenance staffs.

FACULTY SALARIES

Many colleges and universities reported their salary ranges in the various academic ranks. Because a high percentage was submitted on a strictly confidential basis, however, we are reporting only the average salaries, classified by state universities, state teachers' colleges, municipal universities and private institutions. Dean's salaries range from $2500 a year to "more than $8500." Eleven colleges report average deans' salaries about $8500. The range in which the greatest number of schools show average deans' salaries is $3750 through $5250. Fifty-one schools appear in this range, with 12 in the $5000 to $5250 salary group. We find another small concentration in the $6000 to $6250 area, with nine schools represented. The median, or middle fig-

From the statistical study for the 1947 meeting of the Central Association of College and University Business Officers.

ure, when all tabulations are listed in order from lowest to highest is $5000. In examining all of these figures it must be recognized that these were 1946-47 salaries and that many schools have reported anticipated increases in this year's faculty group.

The average salary of full professors ranges from $1900 in one school to $8500 in one school. The greatest concentration, 67 schools, occurred in the $3500 through $4750 range. The greatest number occurring in any one salary grouping range is 21 schools between $4000 and $4250. The median falls in the $3750 to $4000 group.

Associate professors receive annual compensation averaging $1700 to $5250 a year. Most schools report average salaries in this faculty range as between $3200 and $4500. Of 120 schools reporting their associate professor salaries, 74 were in that range. Twenty-two schools reported associate professors whose average fell between $3500 and $3750. Median is also between $3000 and $3100.

The range of salaries for assistant professors does not concentrate in nearly so small a spread as did associate professors or full professors. The various schools reported salaries from $1600 to $5000 for assistant professors. A rather appreciable number of schools appeared in all of the breakdowns from $2600 through $3750, with the greatest number concentrated between $3000 and $3100.

Full time college instructors average between $1100 and $1200 a year in one college and between $4000 and $4250 a year in another. Only 13 colleges among all of those reporting, however, showed average instructors' salaries above $2900. The greatest concentration appears in the range from $1900 to $2900. One hundred nine schools fall in this group. Sixty schools report average instructors' salaries between $2200 and $2600. The most common salary seems to be between $2400 to $2500, where 18 schools concentrate. This also represents the median.

NONINSTRUCTIONAL SALARIES

In the field of noninstructional staff, inquiries were sent out for salaries of executive assistants, accountants, secretaries, clerks and stenographers. The median salary for executive assistants was found to be $3300. The greatest number of schools reported an average salary of between $4000 and $4250. One school reported an annual salary under $2000; nine reported average salaries above $2000 and under $2500; 16 reported $2500 and above but under $3000; six, $3000 and above but under $3500; 13 from $3500 to $4000; 11 from $4000 to $4500, and 12, $4500 and above.

In the field of accountants, 11 schools reported average salaries under $2000; 12 reported $2000 and above but under $2500; 18 between $2500 and $3000; 11 between $3000 and $3500; five between $3500 and $4000; nine between $4000 and $4500, and eight pay $4500 or above. Median salary is $2900.

Thirteen colleges reported an average salary of less than $1500 a year being paid to secretaries; 36 schools are paying their secretaries from $1500 to $1800; 42 from $1800 to $2100; 14 from $2100 to $2400; 11 from $2400 to $2700, and two universities pay their secretaries between $3200 and $4000. Median salary for all schools is $1900.

Clerks and stenographers are on practically the same wage scale. Six colleges pay their clerks less than $1200 a year while only three put their stenographers in this low range. Thirty schools pay both their clerks and stenographers between $1200 and $1500; 47 pay their clerks between $1500 and $1800 while 55 pay the same amount to their stenographers; 16 schools report a range of $1800 to $2100 for their clerks and 14 schools put their stenographers in this range; only five colleges and universities report average salaries above $2100 for clerks, and only two above $2100 for stenographers. Median salary for clerks is between $1600 and $1700 and for stenographers, between $1500 and $1600.

SUMMARY OF TREND OF STUDENT FEES

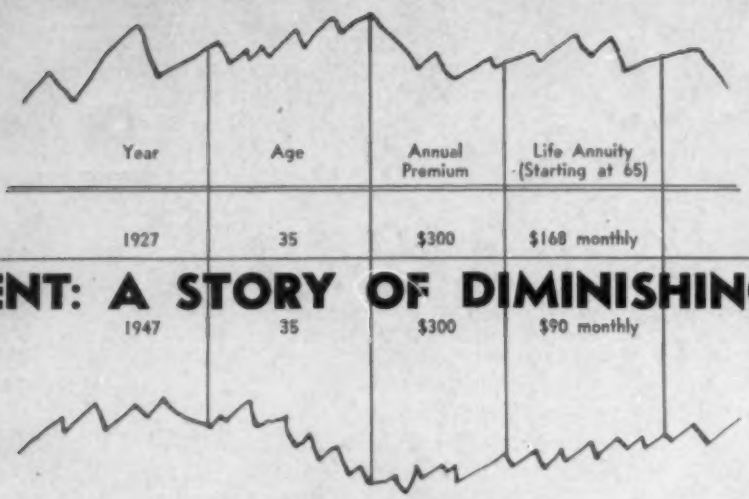
	State Univs.	State Teachers Colleges	Municipal Univs.	Private and Endowed	All Schools
No. higher in 1946-47 than in 1936-37	23	9	5	96	133
Lowest increase	6%	10%	23%	5%	5%
Highest increase	240%	100%	83%	196%	196%
Average increase	39.4%	31.2%	44%	41.4%	40.6%
No. higher in 1946-47 than in 1940-41	18	9	5	92	124
Lowest increase	4%	9%	20%	9.5%	4%
Highest increase	67%	100%	33%	100%	100%
Average increase	23.6%	26.8%	25.8%	34%	31.6%
No. anticipating higher in 1947-48 than in 1946-47	10	4	2	51	67
Of this number how many have not yet had an increase	4	2	0	2	8

SUMMARY

A quick review of this report shows that enrollment throughout Central United States is 65 per cent above the 1940-41 registration in the same schools. It is anticipated that there will be 15 per cent additional increase in students attending these universities and colleges this fall. The greatest number of business officers look toward 1947-48 as being the "probable peak year," although the votes were almost even for 1949-50.

Eighty-two per cent of the schools reporting have increased their fees by an average of 40 per cent during the last ten years; 76 per cent have increased their fees an average of 32 per cent in the last five years. Most tax supported colleges and universities charge a nonresident or equalization fee. This fee averages $144.85 for the school year. Appreciable increases have been made since 1940.

Salary trends are upward in all employe classifications with the office and clerical staff and custodial staff receiving the greatest percentage increase during the past few years. The trend, however, seems to be changing because it is anticipated that instructional staff will receive greater increases in 1947-48 than will the noninstructional group.



RETIREMENT: A STORY OF DIMINISHING RETURNS

RICHARD G. VOGEL
Treasurer, Washburn Municipal University
Topeka, Kan.

TWENTY YEARS AGO A MAN AGE 35 could purchase with an annual premium of $300 a year until age 65 an annuity policy that would guarantee a life annuity of approximately $168 a month, starting at age 65. If we check policies dated between 1910 and 1920, even more liberal guaranteed retirement annuities were available. At the existing rate schedules, the same premium payments for the same number of years would guarantee an annuity of approximately $90 a month. These are two cases taken from our annuity files.

What are the causes of such variations over a period of twenty years and what does it mean?

The two principal influences on rate determination are: (1) actuarial results and (2) investment results. People who reach retirement age live longer than was formerly anticipated by earlier mortality tables. This has compelled companies writing pension policies to revise their actuarial data. We are all well aware of the decreased rate of earnings on investments.

If we assume a uniform purchasing power of the dollar it means that it takes a much larger investment at current rates than formerly to provide the same number of dollars at retirement (virtually double the investment at present to that required 20 years ago).

In addition, when we consider the increased cost of living and the lower value of the dollar, we can readily see that a retirement plan established on an adequate basis may at the present time be most inadequate. Individuals even under the same system, however, are affected differently. Take the original illustration I used, the one person who will retire in approximately ten years may have an adequate retirement income. The other individual who is just now entering the program will be, on the present premiums, almost certain to have an inadequate retirement income although the institution and the individuals contribute a like amount in both cases. Most institutions that have had a retirement program for some years will have many types of contracts on which they are contributing.

The accompanying schedule provides a rough conception of the amount of retirement annuities provided by premiums starting at various ages.

In the annual report of the Teachers Insurance and Annuity Association of America for the year 1946, the statement is made that, "There are now 5495 persons receiving retirement annuity payments totaling $3,316,000 annually." While many of the persons now receiving such income probably contributed only for a short number of years, nevertheless this amounts to an average of only $603 a year or, roughly, $50 a month for each individual under retirement at the present time.

There is no universal simple solution. It is even difficult to determine what constitutes an adequate retirement annuity. Some contend that any plan to be successful over a period of years should provide, if an employe has served for a substantial number of years, an income of 50 per cent of the final pay of the employe. Most plans do not provide more than 33 1/3 per cent of the final salary for the lower salaried employes and even less for employes receiving an annual income of more than $3000. The age at which contributions to a plan begin and the age when annuity payments begin are vital in determining the amount of the benefits to be received. A guaranteed annuity from "the cradle to the grave" would be ideal, except that it would have to be financed through productive efforts.

There is also the special problem of retirement when individuals, because of disability, are compelled to retire at an age earlier than that normally anticipated. Providing adequately for dependents as a result of early death of the wage earner is another problem to solve.

While the problem is complex, I am of the opinion that the responsibility for providing adequate retirement income falls under three categories:

1. *The responsibility of the nation as a whole.* We have the federal Social Security Act which attempts to provide certain minimum amounts to classes covered under the act. It is my humble opinion that educational institutions and their employes could have benefited considerably by being under the act. As general taxpayers we shall, from present indications, be contributing toward the support of the Social Security Act even though we do not participate. Again I should

From an address before the national meeting of the Educational Buyers' Association at Omaha, Neb., 1947.

like to quote from the annual report of the T.I.A.A. for the year 1946: "It is increasingly evident that the employes of educational institutions, as well as the institutions themselves, would benefit by inclusion under federal Social Security. After ten years of waiting, it appears that extension of coverage may come only after concerted positive effort by interested academic organizations and associations and by other groups not now protected."

2. *The responsibility of each educational institution.* It was gratifying to learn that 61 educational institutions inaugurated retirement plans during 1946 in T.I.A.A. alone. No doubt many other institutions started programs with private insurance companies. There is, however, one serious mistake in the fact that only one out of every five plans started in 1946 covered nonacademic employes. Excluding any group or class of employes of permanent nature in an educational institution is gross discrimination. What each institution can do toward a retirement plan is largely dependent upon what its long run financial condition will permit. Each institution should determine its retirement objectives.

Our institution does not contribute toward retirement income on salaries beyond $3000, or the maximum university contribution is $150 a year for any one employe. For employes with an annual salary below $2400 the university contributes either $90 or $120 with the employe electing the amount he desires to match. For salaries between $2400 and $3000, the university contributes either $120 or $150 with the employe making the election and matching a like amount. Stating our policy in another way, the university may contribute annually as much toward the retirement of an employe receiving $2400 a year as it does toward the retirement of its president, the theory being that an individual in the higher salary bracket has a far greater opportunity to augment his retirement income by personal savings or investments than the lower salaried employe.

According to the T.I.A.A. Annual Report for 1946, "There are now 40 T.I.A.A. retirement plans (out of 456) that call for premium contributions higher than 10 per cent of salary."

3. *The responsibility of each individual employe.* When we were primarily an agricultural nation, neither the government nor the employer, except in rare instances, made any provision for retirement income. Since we have shifted towards an industrial economy, a philosophy has developed that society is responsible for everyone's welfare throughout life. In our complicated industrial system it seems sound to expect the state and the employer to make certain minimum provisions. We should not overlook the necessity for individual initiative for thrift which may be used in various ways to augment the retirement income. An individual, through accumulation of life insurance policies or other forms of investment, may be able to make conversion which will assist in his retirement program. Neither the nation nor the employer can hope to meet the needs of individuals to the same degree because the retirement needs vary widely.

During the past few years we have witnessed one of the sharpest increases in the wage and salary level in the history of the country. The same increase has, in most instances, also applied to educational institutions. Will the present wage rates be in existence 10 years from now? What will the purchasing power of the dollar be when individuals retire? These and many other questions affect the adequacy of retirement programs.

I should like to summarize my comments under four suggestions:

1. Be certain your institution has a retirement plan covering all permanent employes, such plan being fitted to your own needs and financial ability.

2. Strive to have educational institutions covered under the Social Security Act, even including the Unemployment Compensation provision. If peak enrollments should increase considerably who knows what educational institutions may in the future contribute to unemployment?

3. If your institution has, from a long run point of view, adequate resources available, consider the possibility of increasing the institution's contributions toward retirement. Increased benefits come only as a result of increased contributions.

4. Create an interest in each employe to become conscious of his own retirement problems and, through the various means at his disposal, increase the income that will be available at his retirement.

SCHEDULE OF RETIREMENT ANNUITIES

	$1000	$2000	$3000	$4000	$5000
			Male		
Age					
25	$44 monthly	$88 monthly	$133 monthly	$176 monthly	$221 monthly
30	36	72	108	144	180
40	22	45	67	90	112
50	12	23	35	46	58
			Female		
25	$37	$74	$111	$148	$185
30	30	60	90	120	150
40	19	37	56	74	93
50	10	19	29	38	48

Using the existing annuity contract rates and assuming a combined annual premium of 10 per cent for the institution and employe with a constant salary from the date of entrance into the program until age 65.

FROM PRESENT VISION

TO FUTURE REALITY

Construction costs less with a campus plan

THE FIRST STEP IN THE PROCESS OF constructing new buildings, and a basically sound one, is a campus plan showing the location of present buildings and the provision for future development. Such a plan should show not only buildings but walks, water mains and size of pipes, sewer lines, electric lines and campus contour lines.

This topographical map and data should be carefully prepared. A few dollars saved in engineering services might result later in costly errors in the proper setting of new buildings and in plans for grading and drainage. Such a map should be prepared under the supervision of an experienced landscape architect and be officially adopted as a part of the record of every educational institution.

In developing such a plan, administrative officials should not be too restricted in their visions. One college generation has no business erecting on the campus a building or a series of buildings that does not represent the best there is in architecture and that will not be adequate for anticipated needs for years to come.

The next step is to determine the amount of money that is available or at least the maximum that is to be spent in erecting and equipping a proposed building. The estimate of the cost should include architect's fee, extension of service lines, grading, planting of shrubbery and other contingencies.

Nothing can be more important than the selection of an architect. This selection should be based on the architect's reputation for quality work and his experience in the type of building contemplated. His reputation with other clients, inspection of his work on other campuses, conference with persons responsible for maintenance and operation of buildings he has erected and the opinion of employes, professional and others, who have worked in the classrooms, laboratories, libraries or gymnasiums previously erected by the architect are fruitful sources of information. The architect's methods of getting out plans and specifications of mechanical work, such as plumbing, heating and electrical installations, should have careful consideration.

Architectural beauty of a building, its harmonious relationship with other buildings on the campus and its practical, convenient and economical operation constitute a happy combination that is both desirable and possible.

When the plans are ready and the money is in sight, the question arises as to the type of contract to be entered into. By that I mean whether it is to be on an open bid basis, a cost plus with guaranteed up-set price or on a fee basis. With conditions now existing, it is generally believed, I think, that the fee basis is the best plan.

If the work is to be done on a fee basis, there should be a definite understanding as to what the fee is to cover. It is important to have a clear understanding from the contractor just what he is to do for the agreed fee. The contractor should be paid a fee that will command his best efforts. Under this plan, it should be remembered that the builder becomes the owner's agent. He should be one in whom the owner can have the utmost confidence.

The government, I believe, has allowed up to 7 per cent of the cost of building as a fee. Irving B. Parkhurst, assistant business manager of Harvard, has expressed the belief that 7 per cent is a fair amount for work costing from $100,000 to $1,000,000, that 5 per cent should be a reasonable compensation for a job costing more than $1,000,000 and that 10 per cent should be reasonable under $100,000. Several hundred thousand dollars worth of buildings have been erected on the Davidson College campus on a schedule of fees considerably less.

Local conditions and public relations are not always conducive to a fee contract. Opinions of institutional trustees and executives will, of course, differ. Some comments on other types of contracts and the relationship of the owner-architect-contractor have a place here.

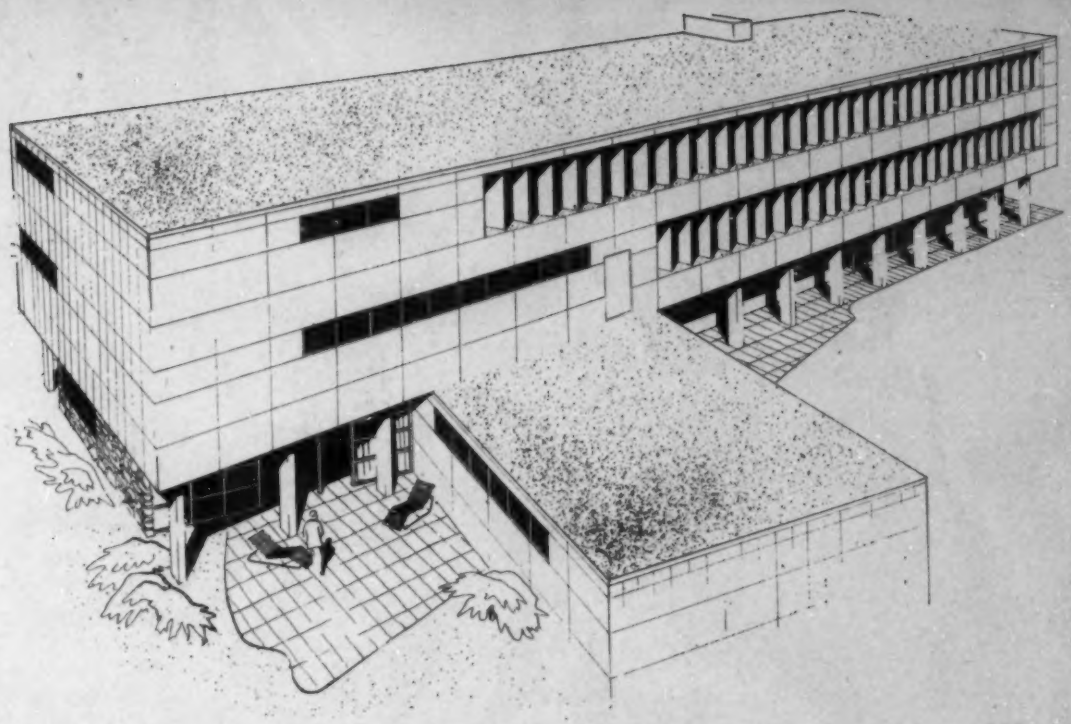
In selecting the general contractor, it is desirable to take bids from no one whose technical skill, financial position and moral responsibility is unsatisfactory. Nothing an architect or an inspector can do will take the place of a competent contractor.

The selection of subcontractors is just as important. The owner should always satisfy himself as to the competency, reliability, responsibility and financial standing of the subcontractors. In competitive bidding, general contractors not infrequently use low bids from subcontractors to whom the owner might object.

Performance bonds, I believe, are required for all public institutions and should be required for private institutions unless the owner is thoroughly satisfied as to the moral and financial responsibility of the contractor. Architects usually specify that 10 per cent of the work done shall be held back. One architect that has worked for us always inserts into the contract a clause reserving the right to hold back 2 per cent of the cost of the building for a period of two years as a guarantee against defective workmanship or

From a paper read before the Southern Association of College and University Business Officers.

F. L. JACKSON
Treasurer
Davidson College



materials. As he once expressed it, this provision holds the contractor's left hind leg longer than a bond does. Under such a plan and being satisfied as to the responsibility of the contractor, private institutions can save a sizable sum if bond is not required.

Bonds from vendors of roofing and other materials are frequently furnished, guaranteeing their materials to last a certain length of time. Such bonds should be carefully preserved.

Before undertaking any construction program, a careful check should be made to see that existing utilities are adequate. Frequently it is found that the heating plant, the electrical supply main, the sewer treatment facilities are inadequate. The additional cost of such items should always be investigated and the cost of necessary expansions as well as the cost of extending existing facilities to new buildings should be a part of the budget of the new construction. Levels should be taken to see that the steam condensation return pipes and the sewer lines can be accommodated at nearby manholes. Contour lines should be checked for accuracy to make sure the building is not placed too low or too high.

The owner should check carefully the type of materials that will make up the floors, walls, ceiling finish, painting, decorating, cornices, exterior trims, roofing, flashing, drainage, plumbing, electrical and heating equipment. The proper evaluation of these items constitutes the difference between a shoddy building with high maintenance cost and rapid deterioration and a satisfactory, economically operated building. The difficulty faced, of course, is to make the building reasonable in cost and, at the same time, permanent in construction and low in upkeep. Obviously, the best and most nearly permanent materials are usually the highest in initial cost. The good judgment of the administrator here comes into play and only experience can give the answer. It is always wise to consult with the operating and maintenance personnel in the planning of a building.

Proper supervision as the work progresses is a most important item in the construction of a building and there is a great variance in the amount of supervision architects furnish. The size of the job and the distance the architect has to travel are determining factors. The amount of inspection also varies with the types of building and the stage of construction. This phase of the work should be carefully discussed with the architect before he is engaged.

There is frequently a lack of understanding as to the architect's responsibility. There is an implied responsibility but no legal one involved. As in other professions, the architect endeavors to the best of his ability to see that the construction is carried on in accordance with plans and specifications, but if his services in this respect are not satisfactory it merely reflects upon his reputation.

There is a legal point involved, however, in every contract and it should be carefully watched. When a contract is drawn, the specifications provide a method of taking care of extras and deductions. It is usually specified that these shall be in writing and approved by the architect. With such provision in a contract, when an owner gives an order direct to the contractor for a change in the plans or specifications and the contractor accepts, the contract has been automatically voided and the owner is then subject to such changes as the contractor wishes to make. This point, I believe, has been contested in the courts of New York State. I have heard of one contractor who stated that it was his common practice to bid a job at less than it was worth and count on his ability to persuade the owner to give him direct orders changing plans and specifications to make his profits through excess charges for the excess work, knowing that the courts would uphold him in any suit.

In all contracts and documents, I believe it is a safe precaution to use A.I.A. standard forms. These have been built up over many years of experience and, if carefully followed, will preclude the danger of misunderstanding.

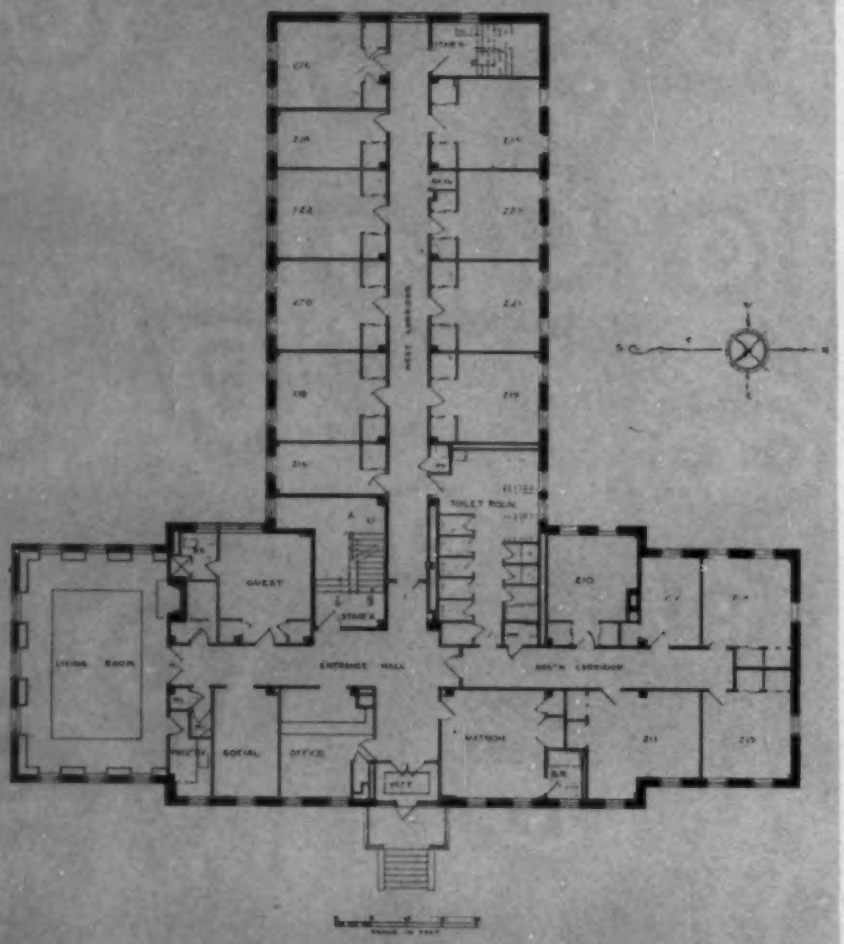
The owner should not overlook carrying adequate fire insurance as the construction of the building proceeds. Responsibility for fire loss during the erection of the building is with the owner.

Residence Hall

MONMOUTH COLLEGE

D. M. McMICHAEL
Vice President and Business Manager
Monmouth College

Alice Winbigler Hall helps solve three problems on this Midwest campus: additional housing, an enlarged home economics department, an infirmary



Plan of main floor

LATE IN 1945 MONMOUTH COLLEGE needed additional housing for students, an enlarged home economics department and a permanent infirmary. The decision was made to construct a girls' residence hall having a capacity of 60 beds and containing temporary facilities for teaching home economics, as well as an infirmary of 15 bed capacity. The building was completed for occupancy last fall.

Rather unusual plan arrangements were required to satisfy these needs as the plot selected was narrow and sloped down from the street front. An inverted T-shaped building met the requirements. By taking advantage of the slope, the building was designed so that the students travel but one story from main to second floor or from main to ground floor.

The infirmary is located in the rear wing of the ground story and is completely isolated from the rest of the building. The front wing of the ground story, which at present contains the home economics department, is designed so that student bedrooms can be substituted at a later date. A small dining room adjacent to the food preparation laboratory furnishes the only dining facilities in the building. In addition to the office, living and social rooms on the main floor, there are student bedrooms.

The second story is entirely devoted to student bedrooms. In a comparatively small building the selected shape permitted the convenient use of a single toilet room in each bedroom story. Individual student cubicles in such rooms hold wash cloths, towels, tooth brushes and cosmetics.

Except for roof framing, the entire building is of fireproof construction, including the attic floor. The vertical and horizontal framing members and the floor slabs are all of reinforced concrete. The beams and slabs are monolithically finished so that plaster ceilings are not required and the floor finishes are applied directly without need for usual fill and cement finish.

Asphalt tile finished floors, having been tested in a previous building,

were used generally throughout. The living and social room wing was floored with parquet style maple on soft cork. Terrazzo was used in toilet and bathrooms and in the entrance vestibule and main stair hall.

Pine paneling was used on walls of living and social rooms, entrance hall and vestibule; in some rooms it was painted and in others natural finish was used. Bedroom walls were papered to blend with painted woodwork and with different colored tile floors.

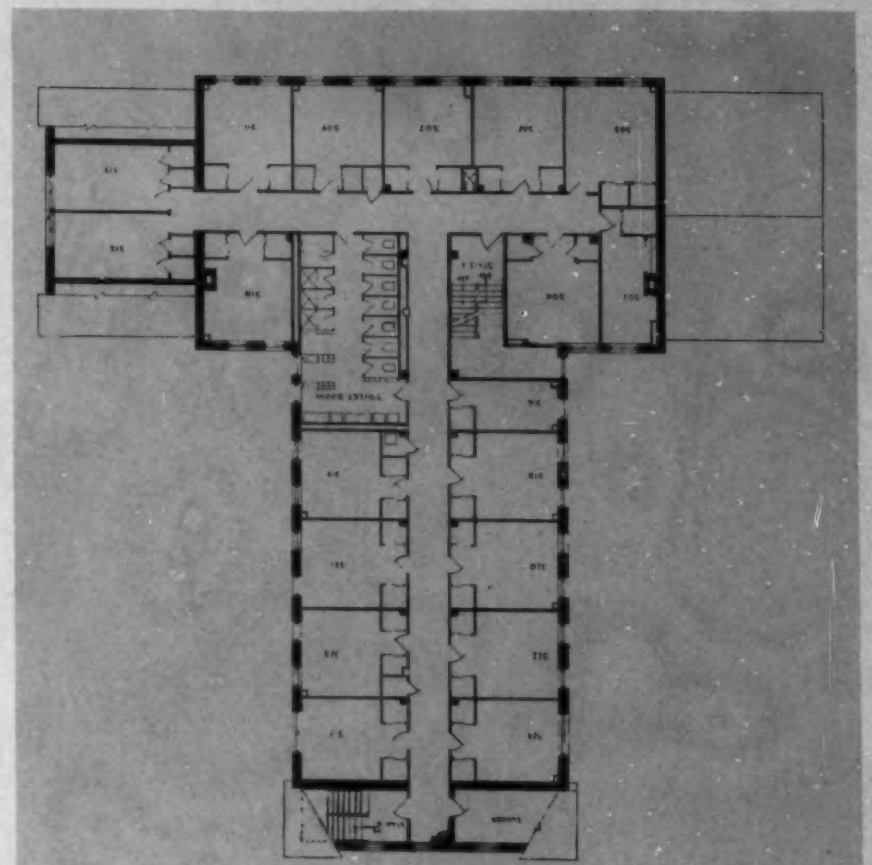
Heating is by a low pressure steam system with gravity return from cast-iron convector type of radiators enclosed in steel cabinets; temperature control is automatic. Steam is obtained from the central plant. The toilet rooms, laundry and food preparation laboratory are mechanically ventilated.

Incandescent lighting with fixtures of Colonial design has been used throughout, except in the home economics department which has fluorescent lighting. A call bell system connects the office with each room. Also provided is a fire alarm system with break-glass fire alarm stations and horns on each floor. A control board in the heater room is connected to the main fire alarm board in another building. In the infirmary, a nurse's call system has been installed. There was no need for an elevator.

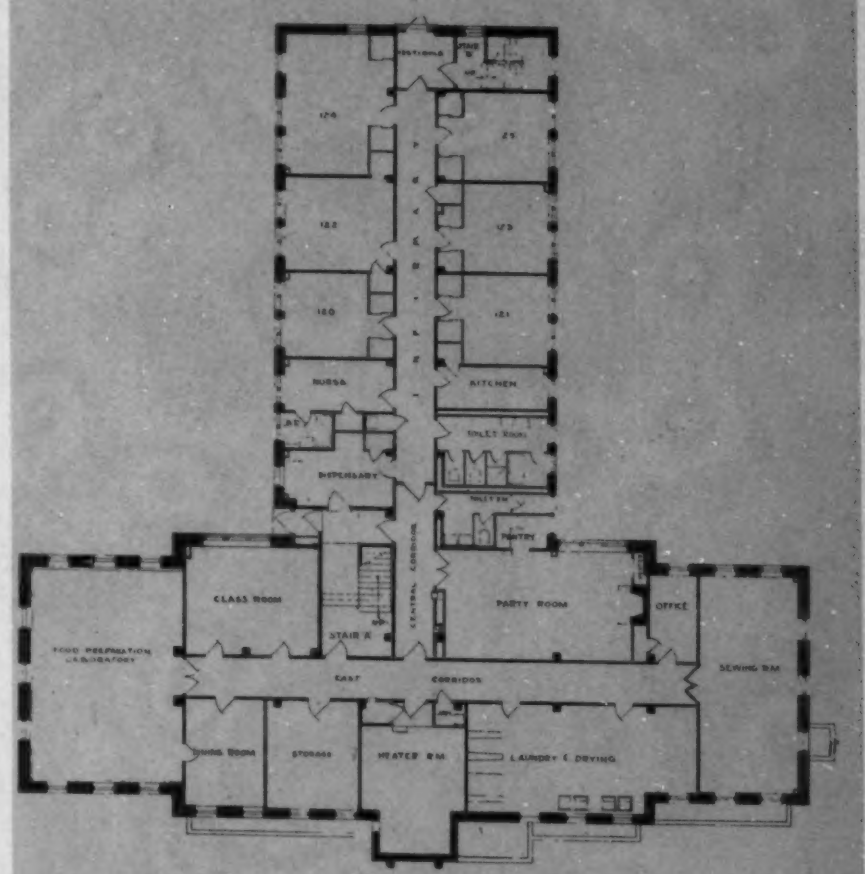
The front of the building, being two stories in height, looks like a large Early American home. It was designed to harmonize with other buildings of more formal appearance. The walls are of red brick with white wooden windows, doors, entrance motifs and cornices. Black "Williamsburg" tile shingles form the roof of the structure.

Arthur O. Angilly, 1 Madison Avenue, New York, was the architect for this building. He recently designed two other buildings for us and is now working on a memorial stadium.

The total cost of the building was $230,000, only $20,000 more than we originally anticipated. A similar residence hall completed in 1940 cost $130,000.

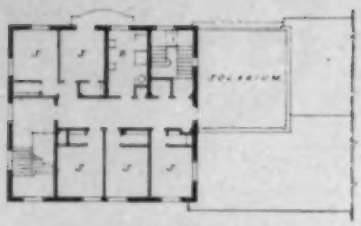


Plan of second floor

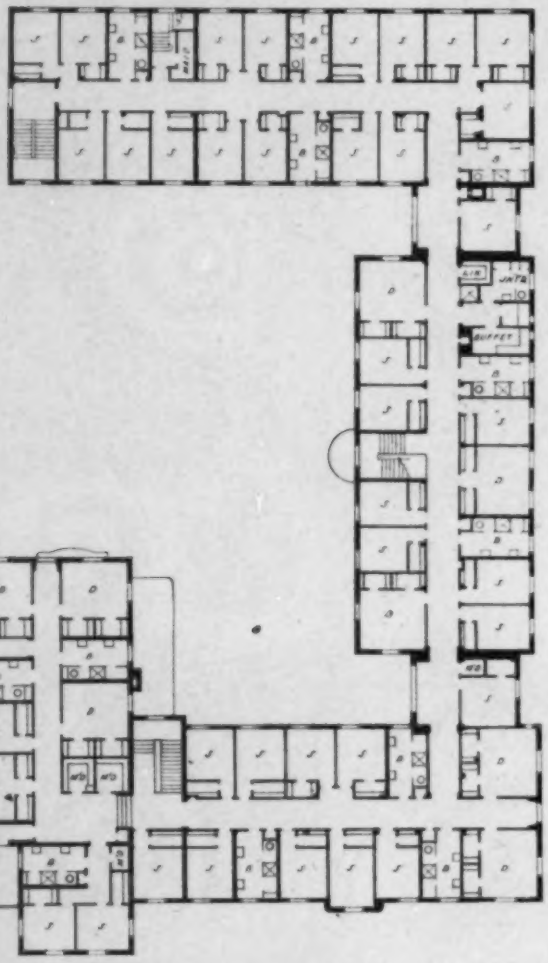


Plan of first floor

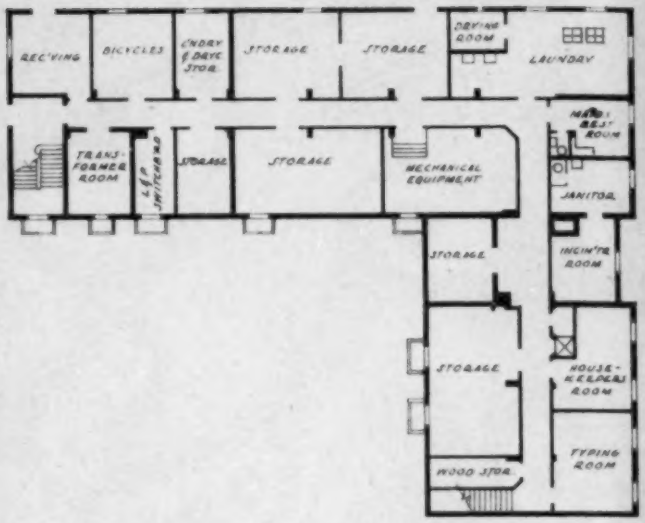
POMONA COLLEGE



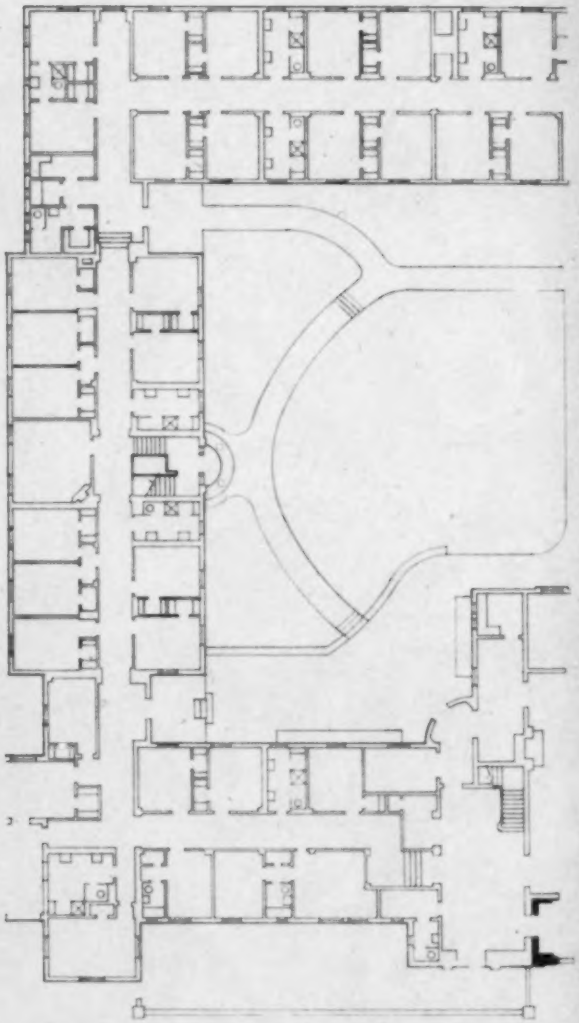
THIRD FLOOR PLAN



DELLA MULOCK MUDD HALL
SECOND FLOOR PLAN



BASEMENT FLOOR PLAN



FLORENCE CARRIER BLAISDELL HALL
FIRST FLOOR PLAN

Residence Hall

ROLPH FAIRCHILD
Director
Pomona College News Bureau

CONSTRUCTION DETAILS

GENERAL DATA: Della Mulock Mudd Hall, direct extension of Florence Carrier Blaisdell Hall built in 1935 and continuing existing architectural character. Two full stories, partial third floor, service and storage basement accommodating approximately 98 women in 13 double and 72 single rooms.

CONSTRUCTION: Fireproof to ceiling slab below roof; designed for seismic loads. Simple treatment of unpretentious "Mediterranean"; stucco walls, low-pitched tiled roofs covered with "old gold" mission tile; overhanging cornices; few details. Roofs, wood frame; exterior walls, reinforced concrete and stucco; floors, steel beams supporting concrete slabs; interior partitions, metal stud and plaster; windows, steel casement with full screens.

FLOORING: Basement, cement; stairways, strip carpets; bedrooms and corridors, stained cement; bathrooms, ceramic tile with marble showers and stalls; kitchenettes, battleship linoleum; living room, offices and similar areas, composition oak block laid on cement; loggia, "old gold" quarry tile.

WALLS: Smooth plaster, generally; canvas in living room; ceramic tile wainscot in bathrooms; colors, greens, pink, ivory, yellows, grays.

CEILINGS: Smooth plaster, generally; acoustic fiber tile and plaster cornices in corridors, stair halls, magazine and browsing rooms. Varied range of light colors.

HEATING: Steam heating and ventilating system through manually controlled convectors; steam supply from college plant.

LIGHTING: Wall brackets in bedrooms; ceiling fixtures in main gallery; floor lamps elsewhere.

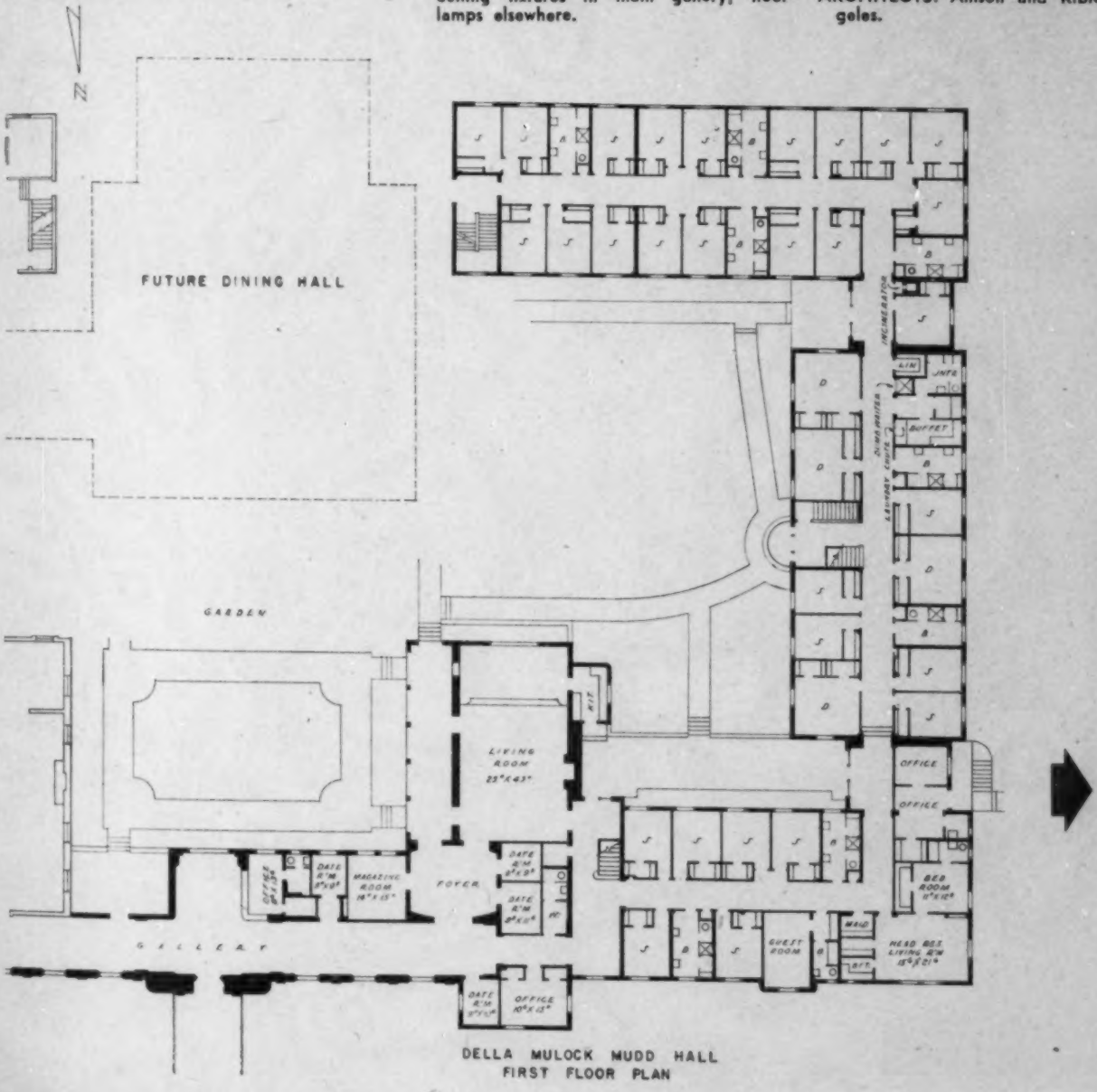
CALL SYSTEM: Telephone to each bedroom through central switchboard.

DUMBWAITER: From basement to first and second floors for luggage, heavy items.

SPECIAL FEATURES: Kitchenette and buffets, with built-in ironing boards, on each floor; trash chutes on first and second floors; flower room; four date rooms; guest room; head resident's apartment suite; four offices; magazine room; reception gallery; browsing rooms; sun decks; solarium; bicycle room in basement; shampoo room; student laundries; brick paved terraces and walks.

COSTS: Approximately $525,000, including fees but excluding price of land. At 100 occupants, equals $5250 per occupant; approximately $0.96 per cubic foot, or $11.75 per square foot.

ARCHITECTS: Allison and Rible, Los Angeles.



DELLA MULOCK MUDD HALL
FIRST FLOOR PLAN

Residence Hall FURNISHINGS

JULIA FRANCES TEAR
Associate Professor, Department of Textiles, Clothing and Related Arts
Michigan State College

ON MICHIGAN STATE COLLEGE CAMpus are three women's dormitories erected between 1931 and 1939. One of these houses 250 students and the other two house 300 each. Nearing completion are three new dormitories, each of which will accommodate 300 women.

Owing to the fact that the state of Michigan does not appropriate funds for housing students, the dormitories for the most part are built on a self liquidating plan, the buildings becoming the property of the college when they are paid for. One dormitory for women was partially paid for by federal aid; the new ones are being financed on a twenty year basis. The cost of the new buildings is about double that of those erected in the 1930's. The furnishings and equipment for each of these cost $50,000 but the present cost of furnishing and equipping each dormitory will be approximately $115,000 when completed.

In planning furnishings, it is well to consider (1) the varied uses to which the building is to be put, (2) the number of students to be housed, (3) the kind of students, whether men or women, (4) the amount of money allocated to furnishings, (5) the plan for replacement, (6) the architecture of the buildings and (7) the color and design of the furnishings as well as their durability. Serviceability is of utmost importance. Not only good construction but also good design and suitable colors contribute to the long life and attractive appearance of furnishings. Money spent for good quality in the beginning is economy in the long run. Replacements are expensive both in materials and in labor.

A tentative budget planned in as much detail as possible should precede any selection of furnishings and equipment. First, the total sum can be divided into an amount for each large area. For example, areas may be (1) the dining area, including kitchen and dining room, (2) the sleeping area, (3) the living area, including lounges and recreation rooms, (4) miscellaneous, such as hostesses' suites, laundries, kitchenettes and similar units.

The relative importance of these areas must be taken into consideration and basic needs provided for first. A kitchen must be well equipped; bedrooms must have good beds, sturdy chairs and study tables. Money spent in the beginning for such essentials pays in the end.

In setting up the budget, the requirements for each area may be listed and the total sum for each brok-

ROOM FURNISHINGS at Michigan State include a bed, a chest with mirror, a study desk and a chair for each girl. One easy chair is provided in each room as shown in picture at left. Typical of the school's residence hall units, eye appeal has been achieved without sacrificing durability.

1.

TYPICAL furniture is shown here. (1) Oak chest and mirror. Top is 30 by 20 inches; height, 40½ inches. (2) Combination study table and desk. Top is 36 by 22 inches; height, 30 inches. (3) Oak bed. Width is 3 feet 3 inches; height, 25 inches.

2.

3.

en down into amounts for smaller groups. The sum for the dining area, for example, can then be divided for the kitchen and dining room. The amount for the latter can be broken down for furniture, draperies and accessories, then the exact number of tables and chairs needed can be determined and a tentative sum allowed for each. Similar procedures may be followed for the bedrooms, lounges and other units. It is difficult to select any furniture, rugs or draperies unless an approximate price is worked out in advance. Under present conditions, estimates will probably have to be revised upward. The purchaser must have some estimates on what can be paid for furnishings before any shopping can be done.

To produce a harmonious interior in keeping with the architecture of the dormitories at Michigan State College, furnishings of the Early English periods were chosen. The furniture for the dining rooms and the bedrooms was especially designed and the decorative motifs are in keeping with the period. On the whole, the furniture is smaller in scale and simpler in design than the traditional pieces of Early English periods. An advantage in using traditional styles in furnishing dormitories is that they have stood the test of time and will not go out of fashion quickly; neither will well designed furniture, fabrics and accessories.

BEDROOMS

Most bedrooms in the dormitories for women accommodate two students each but there are a few single rooms. During the current housing shortage, it has been necessary to put three in some rooms. For each girl, the room furnishings include bed, chest with mirror, study desk and chair. One easy chair is provided in each room. Some rooms have bookcases while in others bookcases are built into the study desk. The furniture for half the rooms is oak and for the other half, maple. The maple is designed in an Early American style rather than the Early English and gives a lighter, more feminine appearance than if all the rooms were furnished with oak.

All the furniture is sturdily built and specially finished for the wear and tear it receives. The bed has the appearance of a daybed, with head and foot the same height. Each is equipped with coil springs. Cotton felt mattresses covered with 8 ounce ACA

ticking are used in the older dormitories but inner springs are used in the one last built. The mattresses purchased in 1931 are still in use. Students furnish their own sheets, blankets, bedspreads and towels.

FURNITURE

Dining room tables and chairs are oak, the design being an adaptation of Jacobean rather small in scale. In each of the dormitories for women, there are two lounges in one of which the furniture is early English of oak or walnut and in the other, late 17th and early 18th century English of walnut and mahogany. Much oak furniture in the Early English periods would give the rooms too masculine an air for women's dormitories. The suites for hostesses are furnished in either Early American or simple early 18th century styles.

Because davenports and upholstered chairs receive hard wear and replacement is expensive, well built pieces were selected. As a result, high quality in materials and construction had to be sacrificed in the small chairs and tables. The best quality upholstered furniture has closely woven webbing and eight way, tied coil springs with hair padding and muslin covering under the upholstery fabric. Upholstery fabrics must be firmly woven and any long floats avoided. One firmly woven, rather inexpensive cotton has stood up for sixteen years although most of the fabrics have had to be replaced after from seven to ten years of service.

In choosing new fabrics for interiors of this type, light colors and texture interest, rather than patterns, contribute a modern air. Replacement of upholstery can be reduced by choosing furniture with arms partially or wholly of wood and by avoiding the use of fabric along the base of davenports and chairs where heels kick.

FLOORS AND FLOOR COVERINGS

Entrance hall floors are tile, the lounges oak, the halls and bedrooms battleship linoleum on concrete. No rugs are provided for the bedrooms. The rugs in the lounges consist of three pieces of 12 foot broadloom laid close together to give the effect of carpeting. The separate strips can easily be reversed to distribute the wear evenly and are more easily handled when taken up for cleaning. Carpeting must be of good quality, firmly woven. The best indication of quality is the number of tufts per square inch. Part of the Wilton carpeting installed in a dormitory opened in 1931 is still in use and velvet carpets in use since 1937 are still in good condition.

Rugs with some pattern or with textured effects show wear and soil less than do solid colors. Patterns may be inconspicuous or in two tone effects produced by cut and uncut pile or by different heights of pile. Colors should not be too dark or too light or they will show footprints and soil. The life of carpeting can be prolonged by frequent turning to distribute wear, changing furniture to bring traffic in different places and using hair rug cushions. Small rugs to match the carpeting may be used in places receiving the most wear.

WINDOW TREATMENT

Casement windows influenced the window treatment, no window shades being used throughout the building. In the bedrooms, draw curtains of mohair casement cloth in a neutral color have proved very satisfactory, lasting several years. In some of the lounges, hand blocked linens with crewel type of designs consistent with Early English periods were used. These draw curtains are floor length and lined. Although used in south windows for sixteen years, they are still in good condition. In the dining rooms, either blocked linens or heavy printed cottons were used. Some factors to consider in the planning of curtains are:

1. The length, to the sill, to the bottom of the apron or to the floor.
2. The width. Twice the width of the window should be used for sheer materials and once and a half the width for draperies.
3. Ease of cleaning. The curtains should be either washable or easily dry cleaned.
4. The weight of the fabric. Sufficient body is necessary for large curtains to prevent their becoming stringy.
5. The texture. Smooth textures shed dirt readily; rough textures give interesting effects but very rough cottons tend to soil easily.
6. Mohair draperies, now coming in a wide range of color and design, are well suited to institutional use because they have body, hold color well and shed dirt. In addition to being serviceable, many are washable.

In furnishing dormitories, the importance of well chosen accessories is not to be overlooked. Lamps, fireplace fixtures, pictures, bowls and vases and growing plants contribute to room distinctiveness and give the home-like touches needed in an institution. Great effort is being expended today to raise the level of the surroundings of college students. The esthetic qualities of furnishings are important as well as is serviceability.

One Solution to Teacher Shortage

Although new in educational circles, incentive plans have been effective for some time in industry. President William Bachrach of the Chicago Technical College will suggest in the October issue how you can apply this technic in education.

Residence Hall COUNSELING

CALVIN S. SIFFERD

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University of Illinois

NOT LONG AGO A DORMITORY HEAD resident said to me, "I don't know what others think of our counseling system but I wouldn't give two cents for my job without it."

He was thinking of the countless queries coming daily from some 400 residents under his charge—queries which, if they had not been directed to the counselors, would have either come directly to the head resident or remained unanswered. In the first instance the head resident would not have had time to do anything all day but try to satisfy the students coming to him. In the second, the residents, with questions, complaints and problems unanswered, would have begun building up internal dissatisfaction within themselves and with the university itself.

Residence hall counseling, to know whither its program is tending, must take stock of its resources, formulate certain objectives and, in order to contribute maximally to the individual's educational goals, the university residence halls system must correlate its objectives with the needs of the student residents and with the aims of the university and education in general.

The student, while at college, not only is preparing for a vocation through academic studies but is living in a complex social environment and may develop social proficiency by actual experience. Other areas of development in which the college life situation readily offers practical experience are (1) democratic living, (2) health and recreation and (3) personal adjustment to changing problems. These areas of student development have been incorporated in the following objectives of the residence halls system as established at the University of Illinois.

1. *To foster an academic environment favorable to successful scholastic achievement.* It is not enough that the university supply only the physical necessities for studying. It must be prepared also to assist the individual in the maintenance of incentive, purpose and direction to his scholastic efforts. These are necessities to successful learning. The program must provide aid and liaison with other university organizations, where needed, in the establishment of efficient study habits, guidance, tutoring and similar aids. The actual responsibility for successful scholastic achievement necessarily rests within the individual; however, an atmosphere that encourages such achievement can be created by the counseling group.

2. *To provide an opportunity for, and promote participation in, democratic group government.* Residents should be given maximum opportunity to govern themselves so they develop an appreciation of the responsibilities of citizenship. Students learn democratic living by experience. One who participates in the formulation of a group decision, serves as chairman of a committee, helps to elect officers of student government through democratic procedures is not preparing to live, he is living. Through such democratic activities, the individual learns to become increasingly self directive. He learns citizenship.

3. *To encourage proper habits for health and recreation.* When individuals are grouped together as in residence halls, proper habits of personal hygiene are important in preventing the spread of communicable diseases. Students should keep themselves physically fit by optimum participation in the residence halls' sports activities. The individual should be encouraged to establish for himself a balanced program of studies, sleep, physical exercise and recreation.

4. *To encourage group and individual social development.* In importance, the social development of individual residents ranks with, or immediately below, their professional training. Each individual must be led to feel that he belongs to a group. Membership in this group carries with it the obligation of sharing the responsibilities, as well as the privileges, with other members. The actual social program, dances, stag parties and open house functions, should be arranged, planned and executed by the residents, with each individual contributing to its success. The social activity program for any group must be conceived in the service of, and intimately geared to the needs, interests and purposes of, the particular body of students in which it is to function. Therefore, the social program planned by the residents themselves must be encouraged, stimulated and nurtured. Also, residents should be encouraged to take part in the greater, overall social program of the entire university group.

5. *To promote personal adjustment to the problems of everyday life.* Individuals in the residence halls must be encouraged to meet their problems squarely and realistically with good judgment and constructive action. When residents fail to face their problems, they tend to take on exaggerated proportions. The student must be encouraged to become self dependent in solving his everyday problems. He should realize that he gains nothing when others solve his difficulties for him. The counseling staff, however, often can anticipate and assist in avoiding common major difficulties.

The foregoing objectives do not set up a separate educational entity. Rather, they supplement the whole educational scheme of the university in its efforts to prepare and train the individual in the business of personally successful and socially acceptable living. If the individual and the residence hall in which he lives work together to carry out these objectives, the residence halls will have contributed materially to the education of the student resident.

Residence hall counseling embodying such a program of objectives is good business for the college or university, for by the successful fulfillment of such objectives residents become adjusted more quickly to group living and to the involvements that such living necessitates.

Tree STARVATION COULD

AMERICAN COLLEGES AND SCHOOLS are much alike in one respect: their wealth of shade trees. Often the school was located in a grove of trees but, in some instances, all planting was done after the school was established. Almost without exception much additional planting has been done through the years. Today the intrinsic value of the shade trees is second only to that of the buildings.

Where age has dealt kindly, it would be impossible to visualize the campus stripped of its trees. Their value could be calculated on a replacement basis, size for size and kind for kind. In some instances, this figure would reach surprising proportions but it would probably be the truest approach to their traditional value, the preservation of which should be given as much attention as is the maintenance of the buildings.

Shade trees must be pruned to remove dead and dying branches. Aside from any beneficial effect to the tree —and there are some—pruning may be viewed only from the safety angle. Trees must also be sprayed to control insects and diseases or they weaken, become host to an increasing list of enemies and die. Large valuable trees may require the protection of lightning rods and they often need additional bracing and cabling as insurance against sleet and windstorm damage.

Important as are these practices, they become secondary to the need to supply food for growth. The most carefully pruned tree can die of starvation and a dwindling food supply has contributed to the death of more trees than has lightning or sleet storms. Usually great diligence is exercised in keeping the grounds well groomed; the grass is cut, fallen leaves are raked and disposed of and all branches picked up.

These activities create an unfavorable environment for trees; they hasten the destruction of humus and thereby set the stage for slow starvation. A declining tree grows less and less in trunk diameter and shoot growth each year. One of the best checks on the vigor of a tree is an examination of the shoots. If a branch growing in full sunlight is compared with a similar branch from a tree in

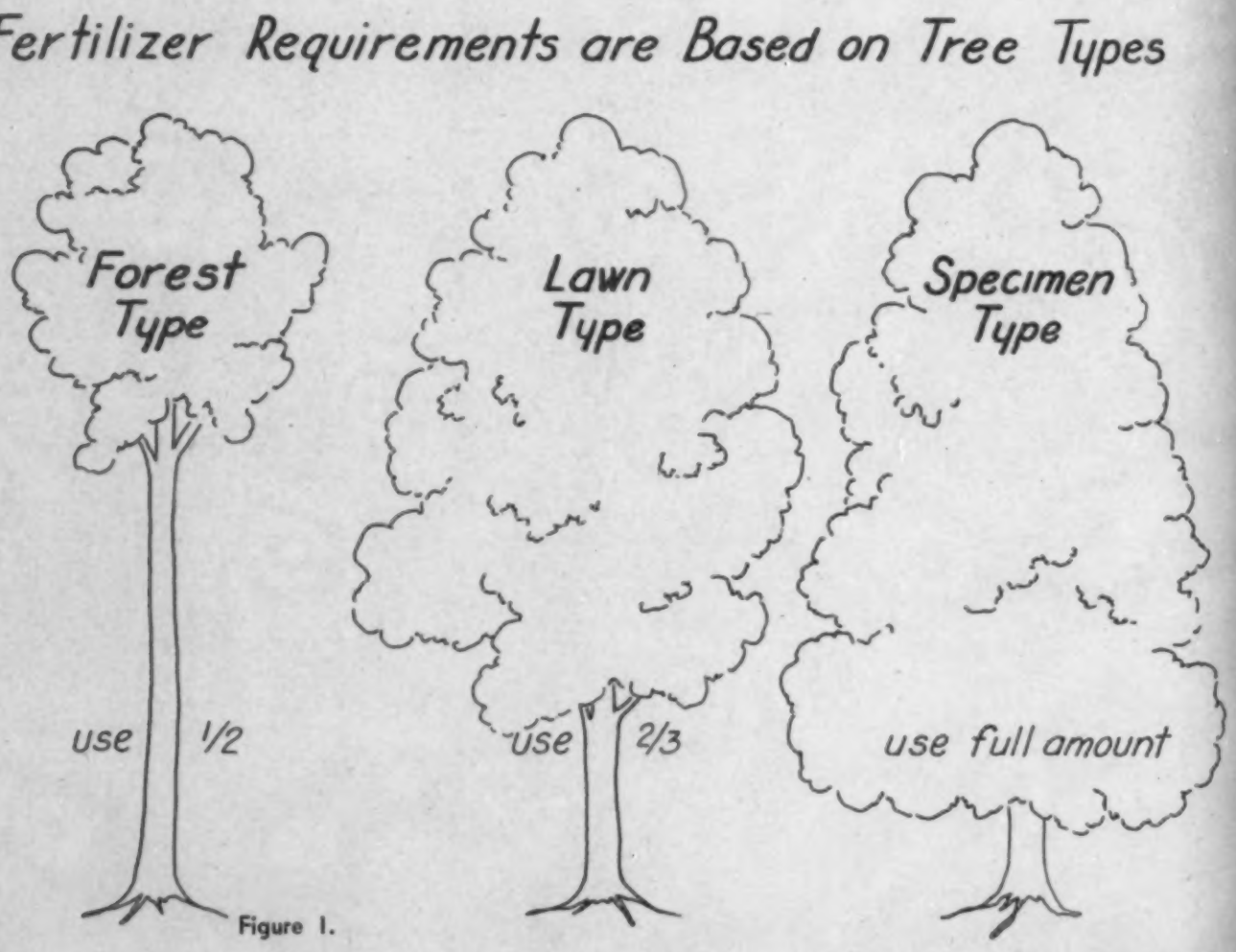

Figure 1.

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STRIP YOUR CAMPUS

a good wood lot, it is possible to determine the relative vigor of the lawn tree. Most shade trees produce shoots from 6 to 8 inches long each year; a growth rate less than half of that is a danger signal: immediate attention needed.

There are just two materials suitable for tree feeding: organic manures (protein fertilizers) and commercial plant foods (nonprotein fertilizers). The organic manures (stable, tankage, seed meals, sludge, compost) have many advantages if a tree is so located that their use is not objectionable. They are most effective if applied in huge quantities, either as a mulch or thoroughly worked into the soil. As a mulch they help maintain a uniform moisture supply, restore some of the soil flora, assist aeration and furnish a continuous supply of nutrients. About the same advantages follow their incorporation in the soil, except that not often can such large quantities be used.

This method of feeding a tree usually calls for hiding the disturbance at the base of the trunk. This can often be done by planting ground covers, suitable for the locality, after the work is finished and then by making an annual surface application of leaf mold during ensuing years.

If a tree cannot be mulched or the soil completely rebuilt through the use of manures, it is necessary to resort to commercial fertilizers for the needed nutrients. These fertilizers are quickly applied, easy to handle and give dependable results. They are available in normal times for field crops, lawns, roses, orchards and shade trees. To be of value for shade tree use they must contain about 50 per cent of the total available plant food in the form of nitrogen. This element is usually the limiting factor in tree growth and must be supplied in greater quantity than either phosphorus or potash. These three elements usually supply the common nutrient deficiencies.

An excellent formula for shade trees is one containing 10 per cent nitrogen, 8 per cent phosphorus and 6 per cent potash. This is called a "10-8-6" fertilizer by the trade. Such materials can be worked into the soil but they are most effective if applied

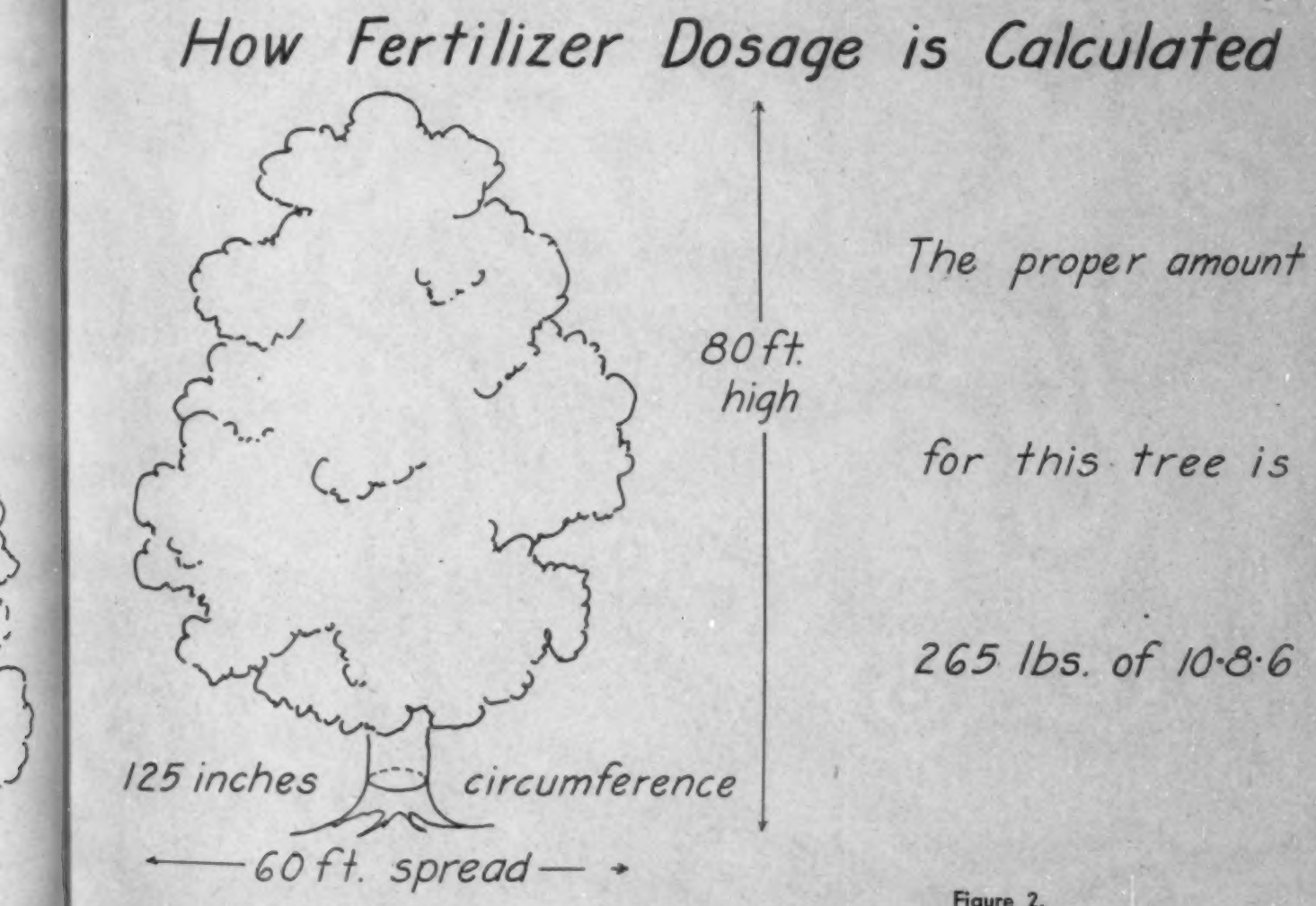

Figure 2.

in the root area below spade depth. If they are water soluble types, they are immediately available to the plant when placed from 12 to 30 inches below the surface.

The commonest method of applying such fertilizers is to use a punch bar to make holes about three feet apart in concentric circles, 30 inches apart, and from 12 to 30 inches deep. The first row of holes begins just beyond the heavy roots near the trunk, the next is 30 inches outside this circle and so on until the last round is well beyond the branch tips. A power driven earth auger or even a posthole digger can be used in place of the punch bar.

Another method is to dissolve the fertilizer in the tank of a power sprayer and force it underground through a small pipe fitted with a handle and valve. If a power sprayer is available, the feeding gun (Fig. 3) can be used. This tool drills the holes and forces the fertilizer underground no matter how insoluble some portions may be. It avoids clogged strainers and the corrosion that follows an attempt to dissolve fertilizer in a sprayer tank. When operated from a sprayer, clear water at pump pressure is used to drill the hole; the valve is then closed, the valve beneath the funnel is opened and the dry fertilizer poured into the mixing chamber. The valve from the spray line is then opened and, at 100 pounds' pressure, both water and fertilizer are forced through every crevice of the soil for several feet beyond the point of application. With the feeding gun both soluble and insoluble materials are ejected and the area impregnated with plant food is far greater than that with the punch bar method. Approximately the same results can be obtained with compressed air equipment being used in place of the power sprayer.

Spring is the most satisfactory time to feed trees although later applications will do no harm. If a fertilizer is applied at a time when the tree cannot use it, some will be lost through leaching, the only objection to summer or fall feeding.

The proper amount of plant food to give a tree is a controversial matter. If we keep in mind the great amount accepted by a starving tree and reduce it if the patient is not near death from malnutrition, we shall have little trouble using the following formula. Many hundreds of trees were measured to find some rule of thumb to show the size of the tree and how it differed from its neighbors. Finally, three measurements were taken and, when added together, the sum was translated as the number of pounds of 10-8-6 fertilizer needed by a starving tree of that size.

Here is the formula: the height and the branch spread (both in feet) are added (Fig. 2) to the circumference in inches and the sum is the pound weight of food required. Less is to be used for a lawn tree with a higher crown (Fig. 1) and still less for a forest tree with a much smaller top. The amount may be reduced if a tree is in better health, and less may be needed if a tree has been stimulated in preceding years.

It will do little good, however, to apply less fertilizer than is necessary to start the tree toward vigorous growth. One heavy feeding will last for years while light applications will be needed annually without ever stimulating the tree beyond the borderline of starvation.

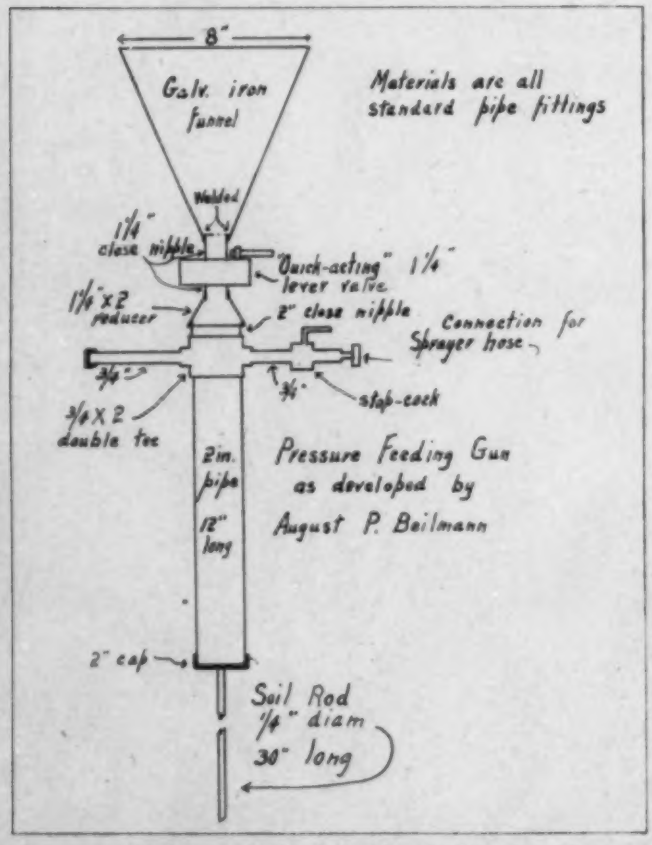

Figure 3, above at the left, shows diagram of pressure feeding gun that can be used with power sprayer. After hole is drilled, gun is withdrawn from soil and a charge of fertilizer poured into funnel as shown in photograph, above right. Fertilizer is forced underground through pipe fitted with handle and valve.

MUNICIPAL UNIVERSITY BUSINESS

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American Council on Education

ONE MIGHT NAIVELY DEFINE A municipal university as a university owned and controlled by an incorporated city. But this is far from uniformly true, and it is not true in even a single instance except in a limited sense. The first and broadest reservation is that a municipal university is an agency of the state and not merely a department of the city government. This is universally true in the United States and has been nowhere better stated than by the supreme court of Nebraska in its 1930 decision upholding the statute of 1929 which permitted the city of Omaha to establish a municipal university and levy taxes for its maintenance.

STATE FUNCTION

The adverse contention was that a municipal university is strictly a matter of local concern and, therefore, not a proper subject of state legislation, especially in a city having a "home rule" charter under the constitution of the state. This theory was stricken down by the court in ringing words: "The right of the state to legislate upon educational matters has not been limited by the constitution. Education in the city of Omaha is not a strictly municipal affair. It is preeminently a state affair. . . . It concerns and affects the whole state."[1]

The principle of state control is amply supported by several decisions in other states. In New York, for example, where four municipal colleges are governed by the Board of Higher Education of the City of New York, the doctrine that this board and its institutions are strictly a part of the state educational system, fully subject to the state education statutes and to the jurisdiction of the state commissioner of education, is consistently maintained. Thus, when a history instructor in Brooklyn College who had acquired permanent tenure was dismissed by the board of higher education and appealed her case to the state commissioner of education, the courts held that the commissioner had jurisdiction to entertain and determine the appeal.[2]

Three times the board of higher education has met defeat when it established rules or practices regarding faculty salaries contrary to the statutory minimum schedules earlier fixed in the state education law. In one of these cases an associate librarian at City College was declared entitled to additional payments for several former years, but the board attempted to defeat his retroactive recovery by showing that he had accepted his pay and signed the pay rolls without protest. A city ordinance provides that this bars recovery, but this ordinance has no application to employes of the city colleges. Said the court: "That the board of higher education is an entity separate and distinct from the municipality and is a state agency . . . is now well settled."[3]

Likewise, a City College teacher who had been employed for ten years as a "temporary instructor" with no annual increments in salary was entitled to recover according to the regular state established salary schedule for instructors because the schedule did not provide for any grade or status less than that of instructor.[4] And a group of instructors successfully sought to have the courts invalidate a rule of the board of higher education of 1935 which made salary increases beyond the fifth increment conditional upon possession of the Ph.D. degree. The rule could not stand because its enforcement would have been in conflict with the state established salary schedules in which minimum increments were prescribed.[5]

In Michigan also the doctrine of state agency was proclaimed when a student in the medical college of Wayne University in Detroit lost his life by falling down an elevator shaft in the medical college building and his father sued for damages against the Board of Education of the City of Detroit as governing board of the university.

Although there was evidence of negligence, because the door through which the student stepped to his death was shown to have a defective latch mechanism, the supreme court of Michigan concluded that the board of education, "in owning and operating Wayne University College of Medicine, was a state agency exercising a purely governmental function and was not liable for the alleged negligence of its agents and employes."[6]

MECHANISM OF CONTROL

Note that Wayne University is governed by the Detroit board of education but that most other municipal universities are governed by a separate board of trustees or a board of higher education. These differences are in large part explained by the manner in which the several municipal universities originally came into existence in the various localities.

In most cases the city itself either accepted a trust fund for the establishment of an institution of higher education or took over the management of a pre-existing privately controlled institution. But in a few in-

[1] Carlberg *v.* Metcalfe et al., 120 Neb. 481, 234 N. W. 87 (1930).

[2] Board of Higher Education of the City of New York *v.* Cole, 176 Misc. 297, 27 N. Y. S. 2d 24 (1941); affirmed, 263 App. Div. 777, 31 N. Y. S. 2d 177 (1941); affirmed, 288 N. Y. 607, 42 N. E. 2d 609 (1942).

[3] Nelson *v.* Board of Higher Education of the City of New York, 263 App. Div. 144, 31 N. Y. S. 2d 825 (1941); affirmed without opinion, 288 N. Y. 649, 42 N. E. 2d 744 (1942).

[4] Dexter *v.* Board of Higher Education of the City of New York, 293 N. Y. 39, 55 N. E. 2d 857 (1944); reversing Same, 267 App. Div. 189, 45 N. Y. S. 2d 264; and affirming Same, 42 N. Y. S. 2d 905 (1944).

[5] Adams et al. *v.* Board of Higher Education of the City of New York, 288 N. Y. 652, 42 N. E. 2d 745 (1942).

[6] Daszkiewicz *v.* Board of Education of City of Detroit, 301 Mich. 212, 3 N. W. 2d 71 (1942).

stances the municipal university, or at least some of its component colleges, was an outgrowth and extension of the local public school system.

In the middle of the 19th century it was decided that the Louisville board of education could not govern the University of Louisville because the university's charter of 1846, providing for its own board of trustees, was a contract between the state and the university which could not be modified without mutual consent.[7]

Two generations later a similar decision was reached regarding the University of Toledo when, after a protracted controversy, it was concluded that its control must be in the hands of a separate board of directors and not in the board of education, because the latter arrangement would violate the terms of the Scott trust which had been accepted by the city council when the institution was first established as a private manual training school.[8]

RELATIONS WITH CITY AUTHORITIES

Often the courts, in cases involving municipal universities, have looked to the well established customs and usages in the management of institutions of higher education rather than to a literal interpretation of statutes or municipal ordinances which would do violence to those usages unwittingly. For example, when a New York statute prescribed a maximum salary for the president of the College of the City of New York and the governing board paid him the full maximum and, in addition, allowed him free occupancy of a suitable house that would otherwise have cost a substantial rental, the courts sustained that practice in deference to "a custom, very prevalent throughout the country, of providing for the head of an institution of higher learning, a residence on or near the grounds of the institution, so as to better enable him to perform the onerous and time exacting duties of his office."[9]

[7]City of Louisville *v.* President and Trustees of University of Louisville, 54 Ky. (51 Monroe B.) 642 (1854).

[8]Toledo *v.* Seiders, 15 O. C. C. (N.S.) 468, 23 O. C. D. 613, 58 Bull. 85 (1910); affirmed without opinion, 83 O. S. 495 (1911). Also Toledo University of Arts and Trades *v.* Hamilton et al., 87 O. S. 521, 102 N. E. 1134 (1913).

[9]College of the City of New York *v.* Hylan et al., 120 Misc. 314, 199 N. Y. S. 634; affirmed, 205 App. Div. 372, 199 N. Y. S. 804; affirmed, 236 N. Y. 594, 142 N. E. 297 (1923).

Years before, Ohio courts had decided, with reference to the University of Cincinnati, that money derived from municipal taxation for the support of the university could be used for the erection of a house for the president since it would be used both as a home for the president's family and for official functions of the university itself.[10]

A Kentucky statute created a personnel commission for the city of Louisville and provided that the board of trustees of the University of Louisville should appoint two of the five members of the commission. This provision was attacked on the ground that the state constitution stipulates

that a corporation must not engage in any business not authorized by its charter. This prohibition, said the court, applies to business corporations but not to public corporations such as the university.[11]

Despite the clarity of the principles enunciated in the foregoing cases, there have been occasional instances in which municipal universities have been checkmated by conflicts with the city authorities. Most notable of these was the 1940 case of Bertrand Russell, whose appointment as professor of philosophy in the College of the City of New York was ordered rescinded by a trial court in New York City before he had begun his duties under the appointment. So moved was Justice McGeehan by his belief that the content of Dr. Russell's published books made him morally unfit as a college teacher that he wrote: "The appointment . . . is an insult to the people of the City of New York . . . it is in effect establishing a chair of indecency . . . the board of higher education has acted arbitrarily, capriciously and in direct violation of the public health, safety and morals of the people. . . ."

The unprecedented spectacle of a court substituting its own judgment for that of a board of higher education in this manner is so important that an appeal to higher tribunals would have been watched with keen interest; but no appeal could be made because the city corporation counsel, said to be acting upon orders from higher political authority, refused to perfect an appeal; and the courts held that the board of higher education had no right to prosecute an appeal with the aid of private attorneys and that the members of the board had no right to intervene as individuals. The corporation counsel, it was held, had exclusive authority to conduct all law business of the city and all its agencies.[12] This is inconsistent with usage in the college and university world and is a state of the law at best of doubtful wisdom.

The city fiscal authorities also figure to some extent in the affairs of the city colleges. When the board of higher education erected a Hunter College building in the Bronx, the contractor later entered a claim for $18,674 for extra work in resting the piers on solid rock because of erroneous elevations shown in the drawings and boring records attached to the contract. The contract itself provided that this information was only approximate, not guaranteed, and not a part of the contract. The board of higher education allowed the claim, however, but the city comptroller reduced it to $13,794, whereupon the contractor accepted under protest and sued for the balance.

The board of higher education, now out of patience, answered with a denial of any liability and entered a counterclaim for $13,794, on the ground that any payment in the premises was unlawful as a gratuity out of public funds. This position was sustained in the courts and a judgment for the full amount in favor of the board was affirmed, in accord with the rule that payments of public money made under mistake of law may be recovered.[13]

[10]Cincinnati *v.* Jones, 16 O. D. (N.P.) 343, 3 O. L. R. 455; affirmed, 18 O. C. D. 210, 3 O. L. R. 572 (1905).

[11]Kerr *v.* City of Louisville et al., 271 Ky. 335, 111 S. W. 2d 1046 (1938).

[12]Kay *v.* Board of Higher Education of the City of New York, 173 Misc. 943, 18 N. Y. S. 2d 821 (1940); and Same, (App. Div.), 20 N. Y. S. 2d 898 (1940).

[13]T. J. Waters Corporation *v.* Board of Higher Education of the City of New York et al., (App. Div.), 296 N. Y. S. 693 (1937).

WE MUST CONTROL OUR *Food Costs*

ANNA M. TRACY
Dietitian
Florida State University

WE HAVE AS MANY KINDS OF COLlege food services as we have colleges. The residential college supplying food service to all of its student body presents a situation different in many ways from that of the university serving only part of its students. A table service offering a table d'hôte menu varies in its management from a cafeteria selling food item by item; snack bars and soda shops are still different. About the only factors all of us have in common are students with large appetites and limited pocketbooks.

In my opinion, we have at least three objectives in our college food service programs: we want to protect and improve the student's health status through good nutrition; we want to protect his dollar; we want to provide him with attractive dining places where he can enjoy the company of his friends.

If we are not achieving these objectives then I believe we should take stock of our efforts. Good nutrition means good food, well chosen and well prepared, as well as a balanced dietary intake; protecting the student's dollar means giving him more than he can get elsewhere for the same money, quality factors being equal; an attractive social setting for food service means, among other things, cleanliness, good ventilation and lighting, absence of excessive "clatter" and an atmosphere friendly and welcoming.

Interest in cost controls is one in a long list of indications of our present concern with high prices. It would seem as if everyone is suddenly realizing that college food services operate on money. Following a survey, this very magazine editorially takes us to task by saying: "That the one who is charged with the budgeting and operation of a food service department is not able to ascertain raw food costs, either by meal or by day, is almost inconceivable." No doubt but that there is truth in this indictment; we have been at fault in some of our operations. Lack of previous need may be the reason for our fault. Money was paid in, meals were served and money was left in the account at the end of the year. No one seemed too concerned. But the day of unconcern is over; we do need to know costs and to know them in considerable detail.

A cost control system, however, must not be considered as a thing apart from good management; cost control is a management tool, to be used with other tools. In itself, a cost control system works no magic; as a part of a general control pattern it serves its function, namely, to record costs and to serve as a control *if* these recorded costs are properly interpreted by management.

CONTROL PATTERN

What constitutes a control pattern? First, I should probably list production control. By this term I mean all activities that are concerned with converting raw food material into finished menu items. Thus, under food production control we have:

Menu Making. The menu must have a cost balance as well as a nutrition balance. To have a cost balance we must know portion costs—the cost of a 3 ounce portion of cauliflower and a 4 ounce portion of roast beef. These portion costs must be known before the menu is made; otherwise, how are we to know that the cash return on a particular menu will cover the costs of producing that menu? One skilled in handling figures soon accumulates a file of high, medium and low cost menu items and, in making the menu, "balances" the high cost items with the low cost ones.

Cooking. Cooking is very much a part of production control. Cooking can conserve or destroy some nutritive values; cooking, especially of meats, can aid in cost control through the control of shrinkage. To get the cost of the 4 ounce portion of roast beef one must know the cost per pound A.P. and the yield in terms of cooked portions; this cooked yield, in turn, depends on the time and temperature in cooking.

Amounts. The amount to prepare is also very much a part of production. Overproduction, although sometimes inevitable, is costly; records of attendance, records of portions sold and a constant study of all factors that enter into patronage and customer acceptance must be a part of production control. Standard sized portions are essential.

Method. The "how" comes from establishing standards of work, from establishing a flow pattern (that is, the path materials follow from receipt in the store to the customers) and from careful attention to the training of all personnel.

In addition to production control, we must control quality. Quality starts with purchasing, a subject worthy of a lengthy discussion in itself; quality control includes supervision of work processes on a positive or preventive basis rather than on a negative or inspection basis; quality control includes the maintenance of standards as set by the management.

Another control that affects cost control is the control of depreciation, by proper operation and maintenance of fine equipment and by the upkeep of our physical plant. One of the hardest things we had to endure in our work during the war years was to see unskilled employes handle our fine equipment. There can be no real cost control except as we take care of our equipment and furnishings.

Storeroom management ranks high on our control list. While a good storeroom cannot by itself make a food service, a poor one can certainly break one. A storeroom must provide for the physical care of stock; it must provide receiving records, prices for issue sheets, inventories and purchase order information. Without a properly managed storeroom one can scarcely control costs.

Finally, we must control our employes by providing them with well planned work schedules, by giving them well thought out directions and

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Presented at annual meeting of the Southern Association of College and University Business Officers, Gulfport, Miss., 1947.

PERCENTAGE DISTRIBUTION OF GROSS EXPENDITURES, FLORIDA STATE UNIV. DINING HALL

Year	Food	Labor	Overhead	Revenue Certificates	Total
1939-40	59.1	24.2	10.8	5.87	99.97
1940-41	60.50	24.65	8.3	6.54	99.99
1941-42	61.7	23.8	8.8	5.7	100.0
1942-43	63.4	24.6	6.4	5.5	99.9
1943-44	64.7	24.5	5.17	5.5	99.9
1944-45	63.11	26.22	4.70	5.95	99.98
1945-46	62.46	25.72	6.14	5.67	99.99

by providing them with positive supervision. If we look at these controls, namely, production, quality, depreciation and employes, do we not see that, by the addition of a system of reports, records and accounting processes, we have the major part of a cost control system? And without these controls, any bookkeeping device we may use is just a series of figures that tells what has happened, and oftentimes too late. Bookkeeping procedures vary from place to place, depending on the type of operation one manages, but the procedures, plus the other management controls, must do these two things for us: (1) make it possible for us to know before operation approximately what the day's cost will be, (2) record various steps in the operations in terms of money.

To know beforehand what one's cost will be calls for standard recipes, prices and yield information on wholesale packages. The skilled operator can usually translate any wholesale package of food into a given number of portions of a given size and thus know the A.P. cost of a raw portion.

The money record starts, of course, with one's income. This can be a known income if a flat rate for board is charged, for the number of patrons times the charge for board is the income figure. Or, if a cafeteria is concerned, the average number of patrons times the average sized check will give us the estimated income. The next step is the determination of relationships various costs bear to one another, the relationships that exist among food, labor and overhead costs. One arrives at these relationship figures through the recorded past experience in one's own place of business or through the use of the experience of others as cited in various publications, plus wise judgment. The relationships are then stated in terms of percentages.

Knowing one's income and having approximated the per cent that can be spent for various classes of outlay, a budget can be set up and bookkeeping technics inaugurated. I wish to emphasize the fact that bookkeeping need not be elaborate to arrive at one's daily raw food figure. On our own campus we arrive at this figure by the use of a receiving record, an issue sheet on staples from our stock room and a direct issue sheet for perishables. Our storeroom and control records, plus our reports from our central accounting office, provide us with figures with which we can compile the information shown in the tables.

In concluding, let me again emphasize that cost control is only one part of many managerial controls needed for successful food operation. If you have good management you can have a good cost control system. But without good management, any system is only another record.

PERCENTAGE DISTRIBUTION OF FOOD EXPENDITURES, FLORIDA STATE UNIV. DINING HALL

Year	Groceries Fats, Sugars	Breads Cereals	Fruits Vegetables	Meat, Fish Eggs, Nuts	Milk, Cheese Ice Cream	Ice	Total
1939-40	16.75	4.0	29.56	34.88	14.75	.049	99.969
1940-41	16.511	2.653	27.491	38.539	14.66	.037	99.891
1941-42	15.8	3.2	26.4	39.1	15.4	.05	99.95
1942-43	16.2	3.2	28.4	39.5	12.4	.01	99.71
1943-44	15.3	3.4	28.9	38.2	14.0	.02	99.82
1944-45	13.49	4.72	30.83	35.52	15.05	.02	99.63
1945-46	10.93	3.63	37.44	39.32	8.64	.01	99.97

PERCENTAGE DISTRIBUTION OF LABOR EXPENDITURES, FLORIDA STATE UNIV. DINING HALL

Year	Dietitians	Clerical*	Weekly Labor	Student Labor	Total
1939-40	11.9	5.59	51.3	31.19	99.98
1940-41	11.14	5.6	52.51	30.73	99.98
1941-42	11.1	5.3	52.1	31.4	99.9
1942-43	11.6	5.0	56.7	26.7	100.0
1943-44	12.2	4.1	58.9	24.7	99.9
1944-45	12.8	4.18	58.67	24.25	99.98
1945-46	11.97	3.40	62.06	21.76	99.19

*Includes two persons in general accounting office.

In concluding, let me again emphasize that cost control is only one part of many managerial controls needed for successful food operation. If you have good management you can have a good cost control system. But without good management, any system is only another record.

ELSIE ANN GUTHRIE
Director of Dormitory Food Service
Iowa State College

SATISFYING THE PALATE BEGINS AT EYE LEVEL

IN THE FEEDING OF COLLEGE GIRLS in residence halls, food palatability becomes a most important concern.

The girls come from all walks of life, from rural and urban areas and with varied types of background and training. Already they have formed food habits, cultivated tastes and dislikes for certain foods and have different attitudes toward food. There are always the spoiled children who have had every attention, along with the girls who have had to look out for themselves. Much food goes to waste, therefore, because it lacks "palatability" to some individuals. It does not appeal in appearance, flavor or texture—sometimes because it is new to them or because they have never learned to eat it previously.

Time and money are wasted in the preparation of some foods that are not eaten but we should not exclude these foods from our menus. We should strive to increase their palatability. Eggplant, tastily prepared, may be served two or three times in season; those who do not know this vegetable will try it and may like it. Beets require special care to make them appetizing. Usually it pays to serve fresh or frozen spinach. Good quality frozen foods retain their flavor and color but are frequently too expensive for general use in a college residence hall.

Such vegetables as turnips, carrots and cauliflower are more popular served raw and crisp than cooked. Our newer methods of cooking, however, are doing much to retain the color and flavor of fresh vegetables. To avoid monotony, vegetables may be cut in different shapes and seasoned differently from time to time. The cooking time should be judged so that a vegetable is just ready to serve; standing makes it soggy or tough. A little undercooking is usually better than overcooking. Cooking in small quantities helps the seasoning to be well distributed; if large containers are used, the food should be divided into smaller portions for seasoning.

In choosing salad materials firm, good quality fruits and vegetables should be selected; to avoid bruising and to retain their appearance they should be handled carefully. So that the salad may be crisp and fresh tasting, fresh vegetables should be used

in preference to canned or cooked foods whenever possible. Special attention should be given to color combinations and to shapes of pieces and garnishes.

The kind of dressing used should suit the salad or supplement the flavor when necessary. Salads should never stand long before serving.

Individual salads with lettuce garnish have more eye appeal than those without it, yet lettuce appears in the garbage can oftener and in greater quantities than any other food. Difficulty in eating lettuce with the fork contributes largely to this situation although many people still think that eating the garnish is improper table etiquette.

Roast meat is rendered more palatable by careful carving and attractive serving. Unless served from the pans or casseroles in which they are cooked, escaloped dishes should be transferred carefully from the cooking utensils to the serving dishes when individual casseroles are not available. Gravies and sauces require special attention and the wise dietitian will avoid using "sloppy foods" on her menus.

Attractive china and well kept table silver contribute greatly to the zest of the meal, especially if the "restaurant" type and patterns are avoided. The service should compare favorably with that found in the average homes from which the girls come.

Another item of great importance is temperature of the food served, the cardinal principle being, "serve hot foods hot; cold foods cold." Warm milk and lukewarm coffee do not encourage the appetite but do take the joy from the meal.

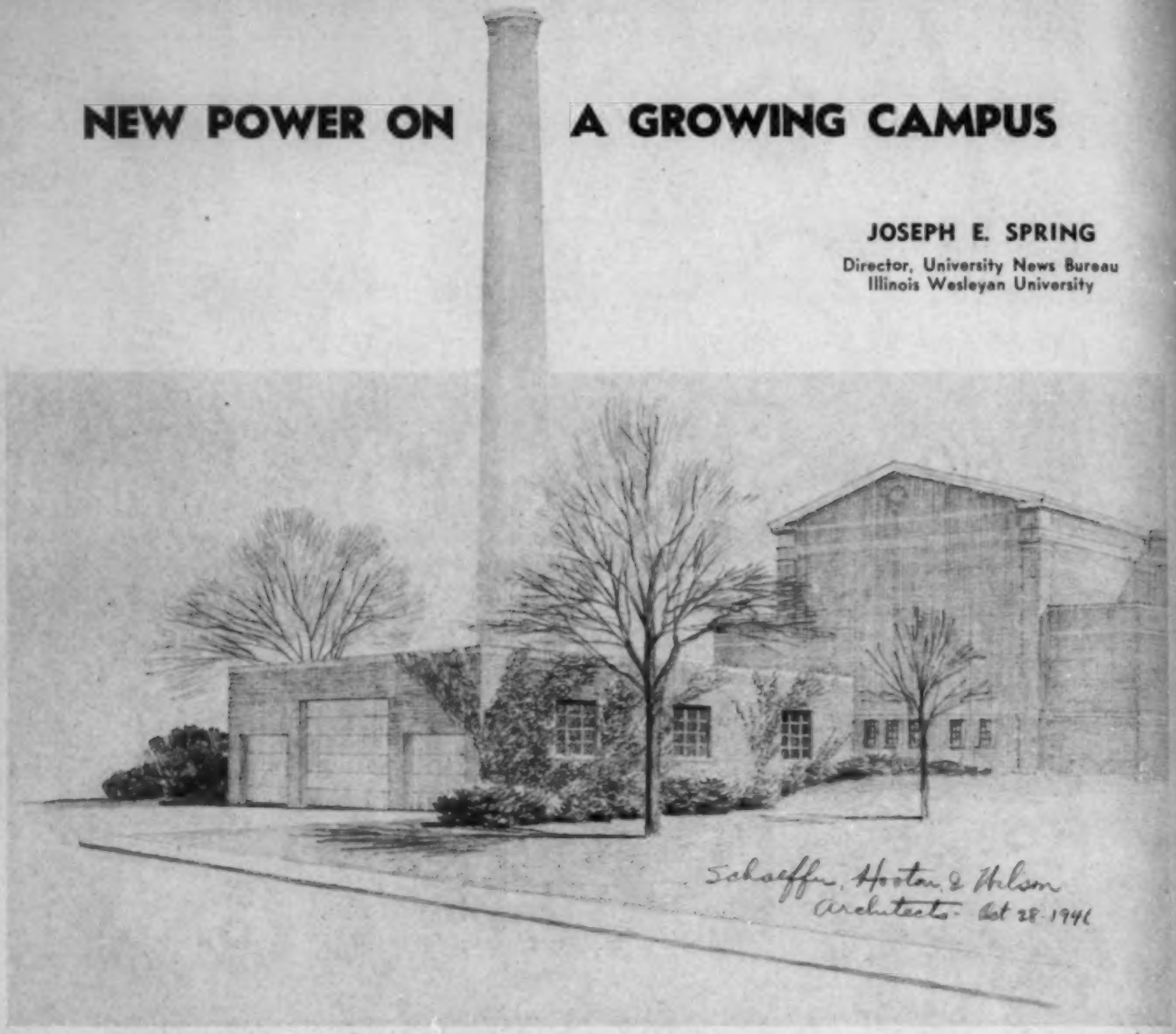
It is difficult to avoid monotony at breakfast because of the limited range of foods suitable for it and the frequency with which some foods must be offered. Almost everyone, however, prefers a certain beverage at breakfast and chooses the same cereal. The price of meat prohibits frequent use; this means using eggs oftener and introducing variety into their methods of cooking. Persons who prefer toast for all breakfasts usually go without bread when quick breads or pancakes are served and no choice is offered. The same situation holds when a choice of fruit is not given.

The girls themselves often give helpful suggestions and their "complaints" may well be given consideration. One student asked, "Why do you waste time chopping apples into small pieces when the girls would rather just eat a raw apple?" When desserts and special dishes are praised we strain our ears to hear something about the tasty vegetable or the good roast beef, the basic parts of the meal.

Perhaps with further training and food consciousness in relation to nutrition the plain foods will receive the same consideration given to the richer and more highly seasoned foods. Our aim is to please all by the serving of nutritious and well prepared food.

NEW POWER ON A GROWING CAMPUS

JOSEPH E. SPRING
Director, University News Bureau
Illinois Wesleyan University



Centralized heating plant at Illinois Wesleyan will have capacity to serve all present buildings as well as those to be added to the campus

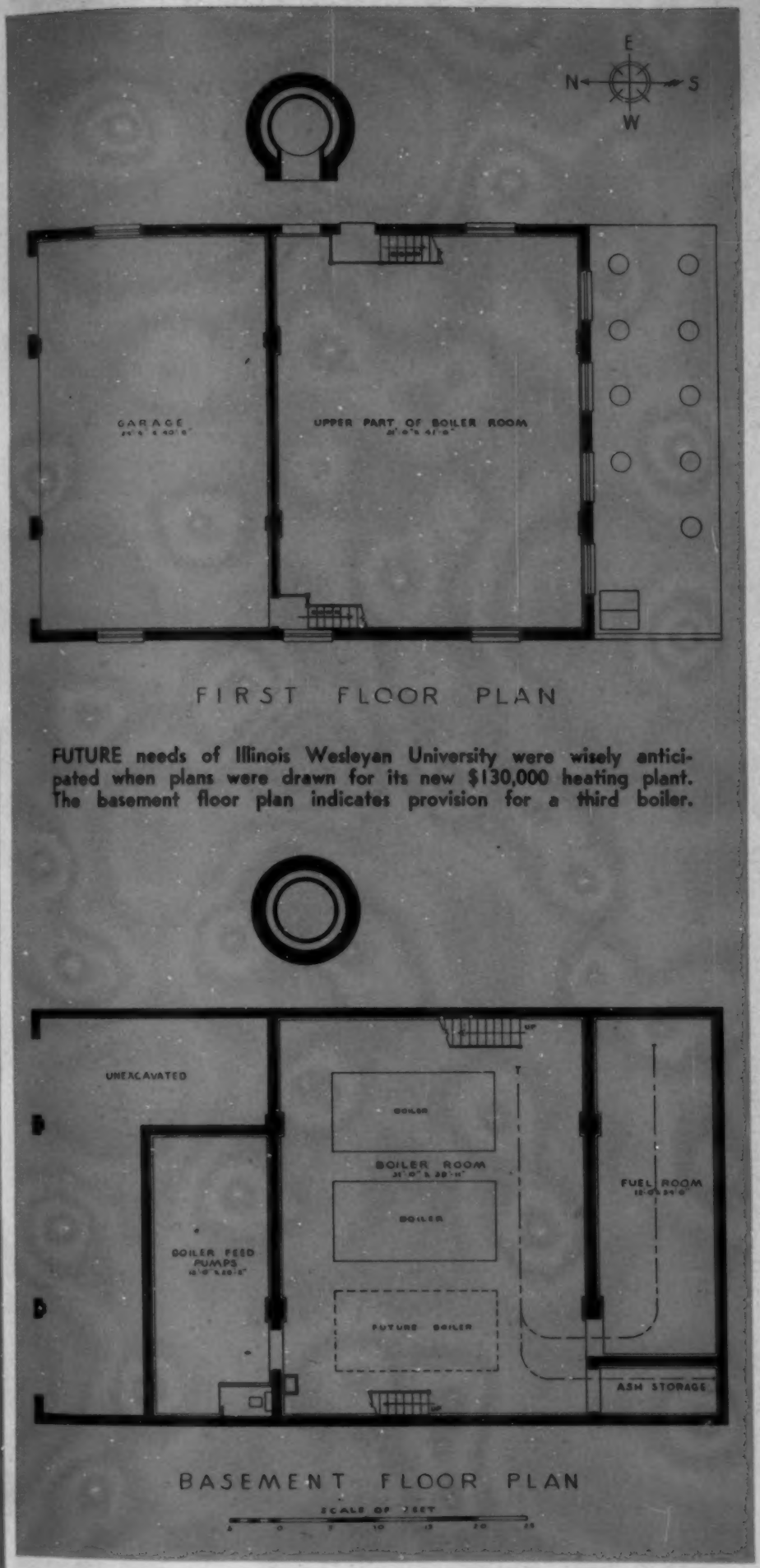
AS A RESULT OF ILLINOIS WESleyan's current building program, the university will have outgrown its physical resources to the extent of replacing an antiquated heating system with a modern $130,000 centralized heating plant.

Designed to house two boilers with provision for a third, the heating plant will have a capacity to serve all present buildings on the campus as well as those to be added. Provision will be made for the accumulation of coal and ashes within the interior of the plant, while the grounds outside will be landscaped with shrubbery and trees. Smoke and soot will be reduced to a nearly nonexistent degree by utilization of modern heating facilities, soot and smoke consuming devices and a network of screens within the chimney; automatic firing devices and combustion controls will reduce ash problems to less than those observed in a private dwelling.

The entirely fireproofed building with a brick exterior will have interior partitions of brick and windows and stairways of steel. All floors and interior features will be of concrete. An exposed roof construction will constitute the ceiling.

The plant will have water tube boilers and stokers with hoppers featuring automatic feeding and draft controls. Special features of the plant will include a system of monorails for conveying coal and ash from the boilers to the elevators and an electric ash hoist.

The $0.56 cost per cubic foot includes the plant and the 125 foot radial brick chimney but not the equipment.



FUTURE needs of Illinois Wesleyan University were wisely anticipated when plans were drawn for its new $130,000 heating plant. The basement floor plan indicates provision for a third boiler.

THIS HOUSING APPEAL WORKED

"THE INCONVENIENT IS NOT THE IMpossible" is the slogan that turned into reality at least one year of the college education envisioned by G.I.'s enrolled at the University of Vermont and State Agricultural College, according to Harry Hewes of the Federal Works Agency office of program reports. With the housing problem again confronting American institutions this fall, they will be interested in knowing how the university obtained the cooperation of Burlington citizens.

The slogan was on the radio and in the newspapers for breakfast, it became the theme of forensic appeals at service and civic clubs and neighborhood luncheons, it reached the eye on placards in store windows and on buses, it was a principal item of table talk at dinner and a sermon topic in the churches on Sunday.

Among the appealing picture angles was an attractive drawing of a door to a pleasant New England home and the words, "Open this Door . . . and give a veteran the CHANCE he's earned!" It appeared on posters, on stationery, in newspapers. During the campaign the *Burlington Free Press* published city maps with black dots indicating where "these doors have opened."

The university agreed to lend beds (two-deckers if necessary), blankets and linen obtained from War Assets Administration surplus. The student lodger signed an agreement to take care of laundry at his own expense, to clean his own room, not to have intoxicating liquor in his possession, to respect the householder's privacy, daily routine and property. The university agreed to assign a student with the desired background, to cooperate in the student's supervision, to provide a written agreement.

In his appeal to the town, President John S. Millis promised that "in the not too distant future permanent dormitories will be the answer. Today the answer rests with you and with me."

When the campaign was over between 600 and 700 beds had been made available to students in the private homes of Burlington.

Mount Holyoke's Voice of the Future

"THIS PROGRAM ORIGINATED IN OUR CAMPUS STUDIOS"

RECOGNIZING THE SIGNIFICANCE OF radio in our time, Mount Holyoke believes that a studio is valuable as a laboratory for students enrolled in a course in radio speaking and broadcasting. Consequently, a radio studio was installed at the college in March 1947. The studio and adjoining control room are complete, modern and professional. The combination of special gifts from outside donors and the recent availability of equipment have made the studio possible at this particular time.

After a study of available space and comparative costs, the Mary Lyon Room (formerly used as a small museum of college history) and a smaller, adjoining room were finally selected for conversion. These rooms are located on the ground floor of a nonclassroom building set back from the street. Ideally, a studio to be soundproof should have little window space, if any, but this location, plus the insulation and drapery, makes the studio virtually soundproof.

The acoustic treatment of the room, which included lining the walls with standard insulating material, was done under the direction of the college superintendent of buildings and grounds, Otto C. Kohler, in consultation with Frederick Saunders, acoustics expert and visiting lecturer in the physics department, and the chief engineer from station WACE. All wiring, including the laying of a 110 volt circuit to replace the usual 220 volt circuit, was done by the chief electrician, Anders C. Kjoller.

Construction problems connected with the remodeling of the room were minor, principally the building and hanging of double doors. The major difficulty was breaking through a thick brick wall in order to install a large double and angled window. The cut had to be made into the structural frame of the building and necessitated the replacement of a steel beam. For the two rooms, a studio 15 feet 6 inches by 40 feet and a control room 15 feet by 15 feet, the total cost of construction was $480 and of insulating, $492, the total under $1000. The entire conversion was completed in two weeks.

Nadine Shepardson, assistant professor of speech and director of radio at Mount Holyoke, in a recent interview stressed the importance of the quality of the equipment. In order to establish conditions equivalent to those of a commercial station, only standard, high fidelity equipment was purchased. The two microphones, one polydirectional, are sensitive; the speakers, one baffle and the other box, reproduce the voice faithfully. The control panel includes a monitor speaker with which the "engineer"

or director can communicate with the studio readily.

Supplementary equipment includes two turntables and recording equipment; a library of both music and sound effects is being slowly built up. The total cost of this basic equipment is under $2500.

The control room table was built at the college workshop to commercial specifications contributed by WACE and checked against standard manufacturer's plans. It is shaped like a squared-off letter "C," the long center section holding the control panel and the extensions accommodating the turntables.

Both turntables are wired into the control panel so that sound effects can be blended by the engineer. This allows continuous recording and makes possible a collection of recording transcriptions for laboratory study both of finished productions and of student programs still in preparation.

As now used, the studio is only a rehearsal studio; programs are broadcast from local stations. Stations located near the college, notably WACE (independent) of Chicopee and WHYN (of the Mutual Net-

JANET STAMM
Mount Holyoke College Press Bureau

work), have been eager to cooperate with the college in the presentation of programs. The college has made the studio available to the community for rehearsal by such groups as the Y.W.C.A. in the city of Holyoke.

Possibilities for expansion of such a studio are greater than the plans for the immediate future. The college auditorium, located in the same building as the studio, was wired in 1937 at the time of the centennial celebration. At that time it was necessary to lease both the telephone wire and the temporary control equipment.

The college foresees the completion of this circuit as the opportunity and occasion arise and as funds are made available for on-the-spot broadcasts, either of studio produced programs or of broadcasts by some of the notable speakers who come to Mount Holyoke. Eventually there may be a permanently leased wire connection.* As these are potentialities rather than plans, however, no details can now be given. Another possibility is the installation of connections with dormitories so that programs can be transmitted over a wired campus network.

The college feels strongly that this whole radio studio project, apparently professional, has a real place in the liberal arts program. The allocation of budget funds and responsibility for planning and expansion are in the hands of Miss Shepardson. Both spending and planning will be projected on the basis of the number of students enrolling in the radio course and on the speed with which they can be thoroughly trained in all aspects of radio production.

Extension of the course anticipates the development of a workshop group on an extracurricular basis. In the meantime, the college has a complete, minimum, professional studio serving the invaluable function of a laboratory, at a total cost of less than $3500.

*Wire connections are customarily made at the request of the commercial radio station; the cost is usually sustained at the source of pick-up. Rates are based on mileage and would, of course, vary with general locality and distance from pick-up to station.

NEW CONTROL PANEL in operation by a student during an actual broadcast. Beyond the soundproof glass, another student awaits her microphone cue. On opposite page, two students, assisted by an Amherst senior, broadcast at the polydirectional microphone.

THE ROVING REPORTER

From Ash and Slag, a Brick . . .

Successful experiments at the New Jersey Ceramics Research Station of Rutgers University have resulted in the development of a process for making building bricks from two heretofore worthless waste products. The new bricks are said to be cheaper and stronger than those of clay.

The waste products used in the manufacture of the brick developed at Rutgers are fly ash, collected in soot precipitators placed in industrial smoke stacks, and slag, collected from the bottom of furnaces in which powdered soft coal has been burned.

Dr. John H. Koenig, director of the research station, says that the outstanding economic aspect of the new brick is the location of the raw materials in areas in which the demand for the product is greatest. No special equipment is needed for the production of the new brick and it can be manufactured with machines now in use in brick plants.

The slag and ash are ground and mixed with a plasticizer and water, forced through a brick die by a de-airing extruder and then dried and fired in kilns. When collected the fly ash is a dark sooty color and the slag is black but when fired they change to various shades of red. The new product was developed by William H. Bauer, a former air forces major, who received both his bachelor's and master's degrees from Rutgers and who has been working for two years on this new process.

Reading Time

According to recent experiments conducted by Dr. Walter F. Dearborn of Harvard, it is possible for college students to read for six consecutive hours without evidence of fatigue.

Groups of high school and college students were asked to read over a long period of time books of easy and difficult reading and microfilm reproductions of the same. Findings of the experiment indicated that students with normal or well corrected vision can read a book of ordinary difficulty for six hours, and under none too comfortable conditions.

The main evidence of fatigue was procured through the continuous electrical recording of eye movements during the reading periods. Lightweight electrodes picked up the minute electrical currents generated when the eyes moved.

DRAWING above proved effective in the housing campaign at the University of Vermont. See story on page 29, "This Housing Appeal Worked."

Roads That Lead to Stephens

So that parents sending their daughters to Stephens College can make travel plans as easily as possible, the travel service of the college prepares a 16 page printed booklet in which railway schedules for more than 200 cities and towns are indicated.

In addition, the names of the person or persons who will escort the groups from the 22 major points of departure are shown as are the hotels that will constitute Stephens College headquarters in various cities prior to the date of departure.

Complete instructions are provided for proper expressing of trunks and baggage and suggestions are made as to where to obtain meals prior to completing the last leg of the trip to Columbia, Mo.

Wiring Higher Education

Being confined to a hospital bed did not prevent a Boston University student, David J. Greenburg of Tel Aviv, Palestine, from continuing his studies. He enrolled some months ago at the university with the understanding he would be granted leave when it came time for him to undergo an anticipated spinal operation.

Dean Judson Rea Butler and members of the faculty immediately investigated ways to continue instruction for Greenburg. Phonograph records were out of the question because of packaging problems and costs. A wire recorder proved the solution.

Greenburg's professors use lapel microphones, recording class lectures as they are delivered to his classmates. Three or four lectures have been recorded daily. A week's supply (18 or so) is sent to Greenburg who returns the spools of wire to be "erased" and used over again.

David takes notes on the lectures, laughs with the rest of the class when the professor cracks a joke and plays over difficult parts of a lecture until he is sure that he has absorbed them. The last named privilege gives him an advantage over active students.

The wire recordings have attracted the attention of the medical staff at the hospital as well as that of patients and visitors.

Handy Identification

As a convenience for faculty members at Sweet Briar College, the administration has furnished all staff members with official identification cards. This has been of great help to faculty members in cashing checks with local businessmen and for myriad other reasons requiring identification.

Under the direction of Don C. Wheaton, treasurer of the college, the identification cards were developed so that staff members would have ready evidence of their affiliation with the institution. This has been particularly helpful, now that staff members do not carry Selective Service registration cards or ration books.

QUESTIONS AND ANSWERS

Purchasing for Library

Question: Which is better: for the library to order its own books and supplies or to order through a central purchasing agent? —H.L.H., Neb.

ANSWER: If the questioner, by use of the word "central purchasing agent," means the state purchasing agent for the state supported schools, I am not able to answer that question because I am not familiar with the procedure. If, however, the questioner means by the term "central purchasing agent" a purchasing officer for a single institution, then I can answer his question as follows:

It has been our experience here that all purchasing of library books clears through the purchasing department. Obviously, however, the choice of books and suggested sources of supply on out of print and hard to find books are recommended by the librarian. The college librarian prepares her purchase requisition and submits it to the purchase office where the purchase order is prepared. Invoices clear through the purchase office to the librarian for O.K. and return for payment. We have found that the purchase office has been able to save a considerable sum of money annually for the library by handling the purchases. Therefore, we think it is better for all library purchasing to be cleared through the central purchasing office.—CLAUDE HOUGH, *purchasing agent, The Principia College.*

Maintenance of Plywood Flooring

Question: We have a number of metal prefabricated buildings in which the flooring is ⅝" plywood screwed to metal stringers. Two problems are being encountered: (1) the screws are losing their grip especially in the corners; (2) the plywood is beginning to wear. I should like to know what types of floor covering are being used to cover plywood.—R.W.S., N. Y.

ANSWER: The question is difficult to answer because all facts are not known. The fact that screws are losing their grip indicates to me that there may be either excessive deflection which strips the threads or too few screws. If there is considerable deflection or movement between sections, I know of no covering that will not crack over the joints with the exception of carpeting of some type. (I assume these screws are the so-called "sheet metal" screw.)—A. F. GALLISTEL, *superintendent of buildings and grounds, University of Wisconsin.*

ANSWER: I am not familiar with the type of prefabricated building described. I do not know by what means the screws are secured to the metal stringers, whether they are forced between two sheets of metal or whether sheet metal screws have been used. Contrary to the belief of most people, however, plywood will shrink and, more importantly, will warp. Such twisting or changing of shape of a ⅜ inch thickness of plywood would exert considerable force so that it could pull loose any ordinary form of screw. If this has occurred, the only suggestion I could offer would be to re-secure the loose corners in the best manner possible.

Of course, any wood will wear unless continually protected by a wearing finish surface. The top layer of plywood is quite thin in itself and soon will wear through unless well protected with seal coats, varnish or wax. It is difficult to maintain such a film. Accordingly, the most practical thing to do would be to cover with asphalt tile or linoleum. Plywood is frequently used in modern construction for subfloors but seldom for the finished floor.—ERNEST L. STOUFFER, *university architect, University of Illinois.*

Venetian Blinds in Labs

Question: For a number of years we have experienced difficulty in maintaining venetian blinds in our science building owing to the chemical reaction on the webbing and pull cords. We would appreciate any information available on webbing and cord which have been impregnated with a substance that will resist chemical reaction if such material is available.—G.S., Tex.

ANSWER: The webbing and the cord could probably be made quite resistant to deterioration by impregnation. Following are a few suggestions on impregnants:

1. A mixture of 75 per cent Dow Latex 513 with 25 per cent of Dow Latex 319 (Dow Chemical Company).

2. A 10 per cent solution in methyl ethyl ketone of Saran F-120 resin (Dow Chemical Company) plasticized with 10 per cent of Santicizer B-16 (Monsanto Chemical Company) based on the resin.

3. A 10 per cent solution of Vinylite VYHH in methyl ethyl ketone plasticized with 25 per cent of DOP plasticizer (Vinylite and DOP from Carbide & Carbon Chemical Corporation).

The real solution to your problem would be to employ web and cord made from a plastic fiber. You might obtain information on the availability of plastic fibers in such forms by contacting the Lumite Division of the Chicopee Manufacturing Company, 47 Worth Street, New York 13, N. Y.—ERIK R. NIELSEN, *supervisor, plastics research, Armour Research Foundation.*

Reporting Income Tax

Question: What is the prevailing practice of schools and colleges in reporting the value of housing and meals in connection with the information filed with the Internal Revenue Bureau for income tax reports?

I know that the practice varies as some schools consider the entire value of housing and meals not reportable; others consider the value of the meals only not reportable; others consider the value of the housing of those employes who are on 24 hour duty not reportable but the value of the housing of employes who have no responsibilities beyond those of the classroom or daytime duties reportable. Perhaps some consider the value of both meals and housing reportable. I suppose too that the interpretation that various regional income tax offices place on this matter has a large bearing on how it is handled.

Any information as to current practices in colleges and universities would be greatly appreciated.—H.B., Pa.

ANSWER: At the University of Wisconsin we include the value of meals as reportable income. Housing for an individual required to be on 24 hour duty is not reported as income. These procedures have been approved by the Bureau of Internal Revenue and by the Wisconsin Department of Taxation.—A. W. PETERSON, *director of business and finance, University of Wisconsin.*

NEWS

Faculty Salaries Found Shamefully Low . . . Indiana Builds Following Trades Agreement . . . Fees Rise 5% in Year . . . No Admission Taxes for Veterans . . . Demand for Adult Study Rises . . . Must Apply to Retain Use of Temporary Housing

California's Building Plans Stupendous

Thought to be the largest expansion of educational facilities at any university in the world is the $28,125,000 building program under way on the Berkeley campus of the University of California.

The largest single unit will be a $3,500,000 classroom building now in the working plans stage. Nearest completion is a $120,000 addition to Hesse Hall for use by the college of engineering.

With 15 war surplus buildings already occupied, university architects, headed by Robert J. Evans, anticipate that work will be completed on 25 additional temporary buildings, three of them quonset huts, before the fall sessions begin. Eleven of these structures are former naval barracks; two story buildings, they are 170 by 36 feet and will be used mainly by the severely overcrowded college of engineering.

First of the postwar million dollar units will be Gilbert N. Lewis Hall, expected to be ready for use by the college of chemistry in the spring of 1948.

At the opposite end of the campus, on Hilgard Field, the superstructure for a $1,200,000 forestry building is going up, with completion date set for the fall of 1948. Contemplated as a supplemental unit is a $1,000,000 forest products laboratory which will be erected on the university owned Gill Tract in Albany.

A $2,370,000 annex to the Doe Library, a $2,000,000 engineering building and 18 other buildings are under consideration for early architectural planning. These include a $1,200,000 physics annex, a $1,000,000 home economics building, a $100,000 insectary, a $100,000 fire house and $1,800,000 engineering units.

College Teachers Paid Less Than Minimum for Grade Teachers

HELEN C. BROWN
Washington Correspondent

More than half the instructors and more than a fourth of the assistant professors in American colleges and universities receive annual salaries of less than $2000, according to a nationwide survey of college salaries paid by 650 institutions during the 1946-47 school year, conducted by the U. S. Office of Education.

Instructors' salaries, ranging from $900 to as much as $4800, are generally lower than the $2400 minimum beginning salary recommended by national educational organizations for elementary and high school teachers with college degrees, the survey revealed.

Commenting on the survey, Dr. John Dale Russell, director of the Division of Higher Education of the Office of Education, said:

"In the face of the serious shortage of qualified teachers, the colleges are finding it increasingly difficult to get faculty members because of salary and housing factors. American colleges need a 50 per cent increase in their instructional staffs, based on prewar faculty-student ratio. Back of the current college teacher shortage is the fact that, during the four to five years of the war period, fewer graduate students were prepared for college teaching."

Aid to Health, Science Teaching

To strengthen national security through education, a new three point program emphasizing improved teaching of sciences, social studies and health will be undertaken by the U. S. Office of Education.

Indiana Gets Agreement With Building Trades

An additional student residence hall and two student-faculty apartment buildings will be built at Indiana University without the use of any tax or public funds, President Herman B. Wells declares. The university's governing board has authorized a bond issue, the bonds to be secured by the buildings and their rental revenues and by revenues from existing residence halls after present obligations have been satisfied.

The two projects, which involve an estimated construction cost, exclusive of furnishings and architectural fees, of $4,500,000, had been held in abeyance pending available materials and stabilization of construction costs.

As the result of negotiations recently carried on by J. A. Franklin, university treasurer, general construction labor as represented in the Bloomington building trades council has provided the university with written guarantees that present wage rates will be maintained on the two projects for the period of their construction irrespective of any increases that may occur in the rates now in force between the unions and local contractors.

The construction will proceed as rapidly as materials and labor are available. Nearly 700 married student veterans are on a waiting list for housing at the university. In addition to meeting this demand, the apartments eventually will replace trailers and other temporary housing.

Designed in the form of a block "I," the two apartment buildings will be constructed of Indiana limestone from nearby quarries and will consist of three stories and basement. Each will contain 79 efficiency and 38 one bedroom apartments, making a total

of 234 apartments in the two buildings. Storage and laundry facilities will be provided.

The new group of four residence halls will accommodate 1028 students which also will be the capacity of the dining hall.

"Even with the new projects, Indiana University will be housing only 21 per cent of its contemplated enrollment in permanent residence halls," President Wells asserts. "This percentage compares with permanent housing at other Midwestern schools not situated in large cities as follows: Iowa, 34; Michigan State, 43; Michigan, 35; Iowa State, 27; Purdue, 22.

Demands for Adult Education Increase

Two out of five adults want opportunity to continue their education, according to a recent Gallup Poll. This is an increase of 7 per cent over a similar poll that was taken in December 1944.

The survey revealed that there is greater interest in adult education among women than among men; that the more education a person has the more he wants, and that the greatest demand for education is in the group from 21 to 29 years of age.

Even more significant is the fact that while commercial and trade school subjects were frequently mentioned as desirable, the demand for them is less than for courses in government and the social sciences.

Of those who indicated subject preferences, 22 per cent want social science, 16 per cent desire professional courses, and the same per cent are interested in foreign languages. Commercial subjects were requested by 14 per cent, homemaking by 11 per cent and vocational subjects and fine arts by 8 per cent each.

Beg Your Pardon

The floor plans, sketch and construction details carried on pp. 12 and 13 of the August issue, under the title, "For Science and Engineering," failed to include the information that the building is being erected at Evansville College, Evansville, Ind. Our sincere apologies to President Lincoln B. Hale and Executive Secretary R. E. Olmsted; also to our readers for this inadvertence.—The EDITORS.

Fees Continue Upward; Top Last Year by 5%

Tuition and other student fees will be, on the average, 5 per cent above those charged last year if the 120 institutions included in the report of the recent survey conducted by the John Price Jones Corporation of New York are representative.

The data, in exact amounts of tuition and other fees, as well as per cent of change, are tabulated by institution. The prewar charges, those for 1946-47 and the contemplated fees for 1947-48 are shown for each of the colleges and universities.

Summary tables given show that the 65 privately endowed institutions reporting increased their fees 23.5 per cent for 1947-48 over those of the prewar period. Resident fees in publicly controlled universities were increased only 8.2 per cent during the same period but nonresident fees were upped 25.5 per cent.

Women's colleges tended to delay advancing their fees but the increase for 1947-48 over 1946-47 is twice that of the men's colleges, thus bringing them to almost exactly the same per cent of increase, 23.6 per cent for men's colleges, 23.4 per cent for women's institutions.

F.P.H.A. to Complete Temporary Housing

Funds are now allocated by F.P.H.A. to complete temporary housing on which construction had been begun prior to April 1, 1947.

A total of 9370 units will be made ready for occupancy by veterans at an estimated cost of $13,000,000. About half of these units are on college campuses and many of them will be finished this fall.

This act also provides $22,600,000 to be used to refund amounts spent by educational institutions and municipalities for the completion of F.P.H.A. contract projects for temporary housing completed at their own expense and $500,000 for reimbursement of money spent for site preparation on projects that cannot be completed by F.P.H.A. under the decreased amount of money available for such construction.

This appropriation of $35,500,000 is probably the last that will be made for temporary housing.

Must Demolish Temporary Housing in Two Years, Except—

When President Truman on July 25 signed Joint Resolution 123, now Public Law 239, the two year period began during which temporary housing constructed under the Lanham Act must be removed. The provision for removal was included in the original act to prevent temporary and "re-use" housing from becoming permanent substandard housing units.

Section 313 of the Lanham Act, however, authorizes the commissioner of the F.P.H.A., after consultation with local authorities, to permit the postponement of removal of any units still needed "in the interest of the orderly demobilization of the war effort." Applications to prevent removal of housing must be made annually after the present two year period has elapsed.

With the continued large enrollments of veterans in the institutions of higher education, it is probable that applications to permit the continued use of temporary housing on college campuses will be approved. There is also the possibility that legislation will be enacted by the next session of Congress transferring title to college and universities.

The removal provisions do not apply to educational facilities other than housing which were provided through F.W.A.

Wisconsin Forced to Raise Incidental Fee to $60

To help make both ends of the budget meet, during the next biennium, the board of regents of the University of Wisconsin voted unanimously to increase the university's present incidental fee from $48 to $60. This increase goes into effect this fall. It was kept at the minimum figure, with the state increasing its budget aid.

Ewing Now Heads F.S.A.

President Truman has appointed as the new Federal Security Administrator Oscar R. Ewing, a New York lawyer and former vice chairman of the Democratic National Committee. F.S.A. includes the major government agencies concerned with health, social security and education, including the U. S. Office of Education.

College of St. Thomas Opens Science Building

The first completed project of the $3,800,000 College of St. Thomas expansion program, the new $1,000,000 science building, Albertus Magnus Hall, will be ready for the opening of the fall term, according to an announcement from St. Paul, Minn. The building will greatly alleviate a serious classroom shortage which has plagued St. Thomas college officials since the close of World War II. The new building will house the science and mathematics departments.

Three temporary buildings, transplanted from a nearby defense project, will also help ease crowded conditions on the campus. One of the buildings will be utilized for classrooms and faculty offices, a second will provide a student lounge and clubrooms, and the third will be a cafeteria.

The second project in the expansion program, the athletic field and stadium, is now under way. The gridiron will be ready for play this fall, but construction of the stadium, seating 9000, has been postponed until next spring because of material shortages.

Lehigh Housing Troubles Soon to Be Over

Postwar housing problems for Lehigh University freshmen will vanish in 1949, according to a recent announcement.

A residence hall, which is now under construction, will offer the facilities needed to provide complete housing for all new out-of-town students. Another unit scheduled for 1948 will enable the university to house 1050 students in five dormitories. Beginning in the fall of 1949 all freshmen from out of the city will be required to live in residence halls.

Surplus Barracks Now a Lab

The recently completed science hall annex at Wofford College, constructed from surplus army barracks, contains 3770 square feet of floor space and will facilitate the scientific training of the large influx of veterans. A white frame building, it is heated by hot air and contains a biology laboratory, a projection room and a 25 by 55 foot chemistry laboratory, in addition to three offices and several storerooms. Wofford is at Spartanburg, S. C.

GIFTS AND BEQUESTS

• UNIVERSITY OF MICHIGAN officials recently announced the acceptance of gifts totaling $155,362. Largest gift was a bequest of 500 shares of General Motors Corporation common stock valued at $29,500 on the day received.

• UNIVERSITY OF ILLINOIS authorities announced receipt of gifts and grants totaling $185,939 in a report to the board of trustees in August. Cash items in the 22 gifts totaled $22,335; items in the 48 grants, $163,604.

• EMORY UNIVERSITY recently received a gift of stock valued at between $5,000,000 and $7,000,000 from C. Howard Candler, son of the Coca Cola Company founder, the late Asa G. Candler Sr. At the same time, the university purchased an additional 5000 shares of the Asa G. Candler Corporation from Walter Candler, also a son of the Coca Cola founder. The total transaction gives Emory University a 75 per cent interest in Asa G. Candler, Inc.

• UNIVERSITY OF MINNESOTA officers have accepted a grant of $130,000 from the Carnegie Corporation of New York for the development and establishment of a Scandinavian area study program. The grant is for a five year period with $30,000 allotted for each of the first three years and $20,000 each for fourth and fifth.

• DARTMOUTH COLLEGE alumni contributed $371,103 to the college in this year's annual alumni fund campaign. This year's fund raised to $4,220,994 the grand total of alumni contributions since the annual fund was inaugurated in 1915. This fund covers any operating deficit that the college might incur and in other important ways provides unrestricted funds for educational purposes.

• UNIVERSITY OF FLORIDA officials have anounced that new equipment valued at more than $1,000,000 will be available to its students this fall. Ranging from a $250,000 radar set to furnishings for new residence hall units, the new equipment was received through donations from various branches of the army and by purchase at a discount from the W.A.A.

77% of Michigan Students in Tax Supported Colleges

Seventy-seven per cent of the Michigan college enrollment last fall was in tax supported institutions, according to a report prepared by Dr. George E. Carrothers, director of the University of Michigan's bureau of cooperation with educational institutions.

The proportion of students in Michigan tax supported colleges is high as compared with many other states. Illinois, for example, is reported to have only 31 per cent of its students in tax supported colleges.

Total enrollment of 74,251 full time students in 39 recognized Michigan colleges in October 1946 is indicated by the report. More than half these students—42,033—were enrolled in seven state colleges; 8431, in the municipally supported Wayne University; 14,276, in 15 church related colleges, and 2655, in three independent institutions. Thus there was a total of 67,395 students in 26 four year colleges. Junior colleges accounted for the remaining 6856 students. The report reveals that 71.5 per cent of the 1946 graduates of junior colleges continued their education in four year colleges.

Marquette Opens Cafeteria to Serve Upper Campus

Marquette University, Milwaukee, is opening a second campus cafeteria to supplement the services provided in the Students' Union building and to provide more convenient facilities for residents of the Upper Campus, which embraces the college of engineering and the schools of medicine and dentistry.

Charles Cobeen, new business manager of Marquette University, is temporarily carrying on his former duties as executive secretary of the union and is in charge of plans for the cafeterias.

Needs Funds; Raises Tuition

Union College trustees have authorized a $50 increase in tuition beginning this September "to pay necessary increases in faculty salaries and to meet increased costs of operating the college," President Carter Davidson said recently. Tuition will be raised from $450 to $500. A previous $50 rise was placed in effect last year.

Veto of Science Bill Denounced by Chemical Society

The American Chemical Society charges that President Truman disregarded the wishes of the country's leading scientists in his veto of the bill to establish a National Science Foundation.

In the August 17 issue of its publication, *Chemical and Engineering News,* the society points out that satisfactory results have been obtained through the National Advisory Committee for Aeronautics under provisions similar to the twenty-four man board proposed for the Science Foundation. The provision by which the director would be appointed by the foundation, rather than by the President, which Mr. Truman cited as one of the reasons for vetoing the bill, the publication asserts, "would insulate him from the pork-barreling activities and pressuring tactics so frequently existing in connection with agencies handling public funds."

It is further asserted that the pocket veto was especially unfortunate since "if Congress had been in session when the bill was vetoed, the veto would have been over-ridden."

Dr. Karl T. Compton, president of Massachusetts Institute of Technology, stated: "The veto of the National Science Foundation Bill is disappointing at a time when help and encouragement are needed. Practically everyone agrees that the universities and colleges cannot contribute their part in meeting the postwar scientific needs of the country on their prewar basis of financial support, and everyone knows that national security and prosperity require assiduous attention to science and scientific training."

Electronics Equipment Available

Millions of dollars worth of surplus electronics equipment tagged for the scrap pile for lack of commercial markets will go to the nation's schools under a disposal plan announced on August 13 by War Assets Administrator Robert M. Littlejohn. Under the plan, W.A.A. is enlisting the aid of engineering schools throughout the country to conduct research and development work necessary to develop means by which this equipment can be adapted to training purposes.

South Dakota Adds Portable Housing Units

Portable housing units are being set up on the campus of the University of South Dakota to house new members of the faculty.

All of the houses and furnishings have been deeded to the university by F.P.H.A. The university has had the expense of moving them to Vermillion, placing them on new foundations, redecorating them and connecting them to water and sewage facilities. Rental is $45 a month for the two bedroom size and $40 a month for the one bedroom size.

The two bedroom houses are 13 by 38 feet and the smaller ones are 9 feet shorter. Rental rates include gas heat, light, water and garbage collection, plus the use of washing machines furnished in a laundry building erected on the site.

Each house has been moved intact on a truck, being loaded and unloaded by means of a crane. Small as the houses appear, each contains a 13 by 18 foot living room, in addition to the bedroom and bath. Kitchen facilities occupy one corner of the living room space. Gas heating and cooking stoves and an electric water heater are part of the equipment.

Seton Hall Doubles Size of Physical Plant

Seton Hall College, South Orange, N. J., entering its 92d year, doubled in physical size and educating a postwar enrollment of 3000 students, will have the greatest body in its history on opening day September 29 when an additional 1000 students are expected to be registered.

Since the close of the war, Seton Hall College has added a modern classroom building for 1000 students, constructed 13 temporary dormitory units to accommodate 200 boarding students and opened a new cafeteria. In addition, three laboratory buildings have recently been completed.

Two of the laboratories will provide biological and physics experiment rooms. The third structure, an important addition to the rapidly expanding psychology department, will be equipped with audio-visual aids and audition rooms in which students can gain practical experience in personnel psychology.

V.A. Reduces Number of Reports Required; Aids Veterans, Too

Veterans Administration has issued Technical Bulletin 7-59 which shows a substantial reduction in the number of veterans for whom colleges and universities will now be required to submit attendance and progress reports.

Under the provisions of Public Law 346, V.A. is authorized to continue payment of subsistence for holidays and not to exceed thirty days of absence in a calendar year. In order accurately to determine the number of days of absence during the year and the remainder of the 30 days for which subsistence would be paid, V.A. has required educational and training institutions to submit exact records of attendance for each veteran student.

The new policy substitutes for detailed determination the continuance of subsistence payments for each veteran student enrolled in institutions of higher learning for a period not to exceed fifteen days between any quarters, semesters or summer sessions. The training status of a veteran who fails to attend the next succeeding term of the institution will be terminated fifteen days from the date of the closing of the preceding term unless the veteran has arranged for termination at an earlier date.

The veteran will not be entitled "to any other leave in addition to the periods not to exceed fifteen days except such other days of leave within terms as may be granted by the institution to other students."

This change of policy (assumption by V.A. that the veteran is in continuous training status *unless reported otherwise by the college or university*) eliminates the necessity for attendance and progress reports on each veteran enrolled. The only reports that are now required (since September 1) are of those veterans who show unsatisfactory progress or conduct, those who interrupt their course prior to the end of the certified enrollment period and those who change their program in a manner to affect the payment of tuition or subsistence.

This substitution by V.A. of only negative reports on veterans failing or dropping out rather than the former positive report on each veteran actually increases the responsibility of the

institution. Payments beyond those to which the veteran is entitled will now be due to the negligence of the institution in discovering drop-outs or failures and in reporting them to V.A.

The period of fifteen days' automatic entitlement has the advantage also of assuring the veteran of the continuance of his subsistence payments during the entire period for which the institution certifies his enrollment. As a further saving of paper work and assurance of uninterrupted subsistence payments, V.A. requests colleges and universities to make such certification for at least a full academic year rather than for one quarter or semester.

Several limitations are prescribed in the operation of the new policy. In no event will the fifteen day extension period apply to a veteran who interrupts his training at any time prior to the end of a term nor will it be applicable beyond the number of days for which he has time entitlement.

The policy does not include veterans enrolled under Public Law 16 or those in education and training in institutions other than institutions of higher learning.

Admission Taxes Not to Be Charged Veterans

Institutions are not required to pay taxes on admission fees (Section 1700 A of the Internal Revenue Code) for veteran students under Public Laws 16 and 346. Beginning September 1, bills submitted to the Veterans Administration by schools and colleges for customary fees to athletic and other events may not include payments for federal admission taxes, according to Technical Bulletin 7-51.

From now on, vouchers covering such fees must certify that the amounts claimed are exclusive of federal admission taxes. No adjustment need be made on vouchers submitted prior to September 1, which included payments of such taxes.

Social Security Study Authorized

The Senate finance committee, which has jurisdiction over legislation in the Senate relating to social security, was voted $25,000 to study the desirable changes in the Social Security Act. A special committee to conduct the study will be appointed by Senator Milliken.

U. S. Now Cultural Capital of World; 18,000 Here From Abroad

The Division of International Exchange of Persons of the State Department announced recently that 18,000 foreign students are now enrolled in colleges and universities in the United States and the number is increasing at the rate of 1000 a month.

Oliver J. Caldwell, acting assistant chief of the division, stated: "At no time in history has one nation been the cultural world capital as the United States is now. The influx of students is one of the most important historical events in our times."

These students are now paying their own way, but when the Fulbright Act begins to operate travel expenses may be paid for foreign students. The act also provides for the flow of American students to European countries on the basis of full scholarships, including travel costs.

The Veterans Administration announced that on May 30 more than 3000 veterans were studying abroad in 34 foreign countries. Under the G.I. bill, V.A. pays tuition and subsistence on the same basis as for veterans studying in the United States. A total of 1200 educational institutions in 71 countries has been approved by V.A. for veteran students.

Technical Bulletin 7-57, issued August 8, authorizes foreign universities to purchase and bill V.A. for books, supplies and equipment. It also authorizes direct refunds to veteran students for such expenditures if purchases are not made through the institutions.

G.I. Education Statistics Released

Primarily because of summer vacation, the number of veterans in education and training on July 31 showed the first significant decrease since the first veteran enrolled under the G.I. bill, but applications for certificates of eligibility and entitlement continue to be made at the rate of nearly 6000 a day, according to statements released by the Veterans Administration. Colleges and universities report a larger number of veteran applicants for fall enrollments than last year.

At the end of the fiscal year on June 30, V.A. had spent approximately $2,750,000,000 for G.I. education and training, of which all but $415,540,000 was spent during the fiscal year July 1, 1946, to June 30, 1947.

Under Public Law 346, payment to veterans for subsistence was more than three times the amount paid to institutions for counseling, supplies and instruction. Under Public Law 16, the ratio was slightly less owing to higher subsistence rates for disabled veterans.

Of all veterans in education and training under Public Law 346, 52 per cent are in colleges and universities and under Public Law 16, 56 per cent. The remainder are below college level or in on-the-job training.

Two out of three of the veterans enrolled in colleges and universities under Public Law 346 are taking courses leading to definite vocational objectives. The largest number, 171,885, are in engineering; the number in other fields are: business administration, 125,446; other business courses, 73,820; teaching, 54,762; medicine, 52,832; physical sciences, 43,545; social studies, 32,810; law, 31,843.

Handbooks on forestry and free-lance and radio-script writing have been added to the list of aids available at the V.A. counseling centers.

By Jan. 1, 1952, 43 per cent of the entire population of the nation will be veterans or members of veteran families and the ratio will decline only to 41 per cent by Jan. 1, 1957.

Veterans on-the-Farm Training Act in Effect

The bill authorizing institutional on-the-farm training of veterans under Public Law 346, passed just prior to the adjournment of the first session of Congress, presumably provides full time training status for veterans in on-the-farm training and sets minimum standards for such training.

The course must include 200 hours a year of organized group instruction in agricultural subjects in an approved educational institution and supervised work experience on a farm or other agricultural establishment.

Supervision by the instructor of the course in which the veteran is enrolled for institutional training must also include a minimum of 100 hours a year for the veteran operating his own farm and 50 hours if he is employed on the farm of another.

Temple Will Serve Labor and Management

An expansion program that will take Temple University facilities directly into business, industry and labor unions as well as extend vocational training to residents of the Philadelphia metropolitan area was announced recently.

Known as the Community College and Technical Institute, the program is divided into a junior college, a two year vocational college to be started as soon as space is available; a management and labor service, which will begin operation this fall, and the Technical Institute, which has been a part of the university program since 1940.

Service to business firms, industrial plans and labor unions will include the application of scientific tests in selection problems; a pre-foreman training and a foremanship training program; an industrial relations training program, which will include parlimentary law courses, grievance problems and personnel systems; management services, including surveys, wage and salary problems, quality control and material handling, and informal workshops.

Nearly all of the services listed in the management and labor program will be done direct and away from the university, although conferences and forums are expected to be conducted at Temple. It will be a non-academic, nonprofit undertaking provided at a minimum cost.

Iowa State Equips Rooms in Private Homes

Iowa State College has initiated a plan to help meet the student housing shortage.

Residents of Ames and the vicinity who have space they could rent to students may obtain furniture to equip the space from the college housing committee. Beds and study tables will be lent to anyone needing additional equipment. Persons borrowing the equipment will make a small deposit which will be returned when the equipment is returned.

Dr. J. C. Schilletter, director of residence, says the plan was inaugurated because many would-be landlords felt that the present housing shortage would be too temporary to justify their purchase of complete equipment for a room.

Names in the News

Ralph G. Anderson has been named superintendent of buildings and grounds at Grinnell College to succeed *Paul P. Meyers,* who has held the position since the early 1930's. Most recently working as a private contractor, the new superintendent has served as superintendent of the municipal court building, Des Moines; as chief engineer of the Iowa Lutheran Hospital, Des Moines, and as superintendent of the power division of the Des Moines ordnance plant.

John T. Thomas has been named vice president and business manager of South Dakota School of Mines. He was formerly a member of the University of Omaha business office staff where he served as purchasing agent and assistant business manager. His successor at Omaha is *Joseph Dellere. Ned Shaw,* chief cashier at the University of Omaha, has accepted appointment as chief bursar at Nebraska State Teachers College, Chadron. He will be replaced by *Paul Titzell. Thora M. Dunten,* formerly assistant bursar at Nebraska State Teachers College, will join the Omaha staff as assistant to the purchasing agent.

Dr. Carter McFarland, former Federal Housing Administration and National Housing Agency official, was recently named administrative assistant to the president of St. Thomas College, St. Paul, Minn. *Rev. Robert Wittman,* St. Thomas Military Academy field representative, has been appointed to assist the *Very Rev. Vincent J. Flynn,* president of the college and academy, in the St. Thomas College expansion program involving more than $3,000,000. *Richard J. Kinney,* formerly with the United States Employment Service during the war, has been appointed director of student placement at St. Thomas.

Rev. Lowell Skinner Ensor has been named president of Western Maryland College to succeed *Rev. Fred G. Holloway* who resigned to accept appointment as dean of Drew Theological Seminary. The Rev. Mr. Ensor was formerly pastor of the Westminster Methodist Church, Westminster, Md.

A. Hollis Edens, dean of administration at Emory University, has accepted appointment as vice chancellor of the University of Georgia.

Irwin I. Wright has recently been appointed superintendent of the physical plant at the University of Oregon, succeeding *Ken Weidner* who resigned to accept a position in Seattle. Before accepting the University of Oregon appointment, Mr. Wright was employed as mechanical engineer for the state of Kansas.

Rev. John A. Flynn, for five years dean of Teachers College at St. John's University in Brooklyn, has been appointed president of the university. He will succeed the late *Rev. William J. Mahoney* who died last April. President Flynn becomes the twelfth president of St. John's University.

Dr. S. Arthur Watson has been named president of Friends University at Wichita, Kan. He was formerly president of Wilmington College for seven years and is a 1918 graduate of Friends University.

Harold W. Stoke, president of the University of New Hampshire, has been elected president of Louisiana State University as successor to the late *W. B. Hatcher* who died last spring.

Henry W. Herzog, comptroller of George Washington University, has been elected president of the District of Columbia Control of the Controllers Institute of America. *H. R. Patton,* controller of Carnegie Institute of Technology, was named a director by the Pittsburgh Control and *John T. Dever,* controller of Villanova College, was reelected a director by the Philadelphia group. The institute is a technical and professional organization of controllers devoted to the improvement of controllership procedures.

Brother D. Augustine, head of the sociology department of La Salle College, Philadelphia, was recently named secretary-general of the national educational conference of the Christian Brothers at the anual meeting held in Santa Fe, N. M.

Dr. George E. Vander Beke has been named registrar of Marquette University to succeed *Mrs. Mary L. Melzer* who has served as registrar at Marquette for twenty-seven years. Dr. Vander Beke has been a member of the university faculty since 1929.

NEWS

George H. Mew, treasurer of Emory University, has been elected president of the Educational and Institutional Cooperative Service, Inc., to succeed *David F. Watson.* Mr. Watson is purchasing agent of the University of Chicago.

Lyman R. Flook, superintendent of buildings and grounds at the University of Chicago, is on leave of absence in order to serve as the university's representative on the Argonne National Laboratory project being built for the Atomic Energy Commission appointed by President Truman. The University of Chicago is prime contractor for the project.

Eleanor C. Duncan has been named business manager of Wilson College to succeed *Arthur J. Frey* who resigned to accept appointment as comptroller of the Rhode Island School of Design.

Conrad E. Fogelsanger has accepted the newly created post of controller.

Sr. Mary Louise Lemoine has been named president of St. Mary's Dominican College, New Orleans.

Philip Chasin has been named executive director of the centennial fund for City College of New York. He was former national director of the joint defense appeal of the American Jewish Committee and the Anti-Defamation League of B'nai B'rith.

Dr. Walter S. Newman was named president of Virginia Polytechnic Institute to succeed *Dr. John R. Hutcheson* who was named chancellor. Both appointments became effective September 1.

Howard L. Hockett, comptroller of Whittier College since 1930, has resigned the post to accept the newly created position of financial secretary of the college. Forced by illness to relinquish a major portion of his responsibilities as comptroller, Mr. Hockett will remain at the college as financial adviser and ex-officio member of the college finance committee. *Robert L. Ashbrook,* former PictSweet Foods executive, will take over most of the duties of college business manager and secretary of the board of trustees. He is a graduate of the University of Idaho and holds a master's degree in business administration from Harvard University.

W. Bay Irvine, dean of men at Marietta College, has been named chairman of an interim administrative committee of the faculty to administer the affairs of the college until a successor to *President William A. Shimer* is named. Dr. Shimer resigned as president following the announcement of his marriage to *Dorothy Blair,* former dean of women at Marietta College.

Samuel M. Holton Jr. has been named president of Louisburg College to succeed the late *Walter Patten.* The new president was formerly executive secretary and associate professor of education at State Teachers College, Farmville, Va.

Dr. Louis C. Wright, president of Baldwin-Wallace College for the last thirteen years, recently resigned.

Nelson R. Henson, director of the training facilities service for vocational rehabilitation and education, Veterans Administration, has resigned his post to become director of a Veterans Administration hospital in New Jersey. He will be succeeded by *A. H. Monk,* a member of the V.A. staff.

Maurice Erve McCaffrey, secretary of the regents of the University of Wisconsin from 1906 to 1946, died August 24 at the age of 72 years. He had continued to serve as trust officer and director of investments from 1946 until the time of his death. Mr. McCaffrey was a charter member of the Central Association of College and University Business Officers, was secretary of that group in 1916 and 1917 and served as its president in 1919.

Dr. John Richie Schultz, fourteenth president of Allegheny College, died August 11 after an illness of two months. He was 62 years of age.

DIRECTORY OF ASSOCIATIONS

Associations of College and University Business Officers

Central Association

President: T. E. Blackwell, Washington University; secretary-treasurer: L. R. Lunden, University of Minnesota.

Eastern Association

President: R. C. Magrath, University of New Hampshire; secretary-treasurer: Boardman Bump, Mount Holyoke College.

Convention: Nov. 30-Dec. 2, John Marshall Hotel, Richmond, Va.; University of Richmond, host.

Southern Association

President: George R. Kavanaugh, Berea College; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: William Norton, University of California; secretary-treasurer: William Brand, Stanford University.

Schools for Negroes

President: V. D. Johnston, Howard University; secretary: L. H. Foster Jr., Tuskegee Institute.

Educational Buyers Association

President: Gerald D. Henderson, Vanderbilt University; executive secretary: Bert C. Ahrens, 45 Astor Place, New York, N. Y.

Regional Meetings: Sept. 19-21, Chicago Area, George Williams College Camp, College Camp, Wis.; Eldon Stevenson, Chicago Y.M.C.A., chairman. Oct. 3-4, Rocky Mountain, Greeley, Colo.; William Christensen, University of Utah, chairman. Oct. 10-12, New York, Hotel Dennis, Atlantic City; E. H. Brill, Rutgers University, and Robert K. Tomlinson, Westtown School, co-chairmen. Oct. 14, Northern California, San Francisco; Lou Baker, University of California, chairman. Oct. 17, Southern California, Pasadena; K. A. Jacobson, California Institute of Technology, chairman.

Association of Superintendents of Buildings and Grounds of Universities and Colleges

President: Paul H. Elleman, Ohio State University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: May 1948, University of Minnesota.

Association of College Unions

President: Douglas O. Woodruff, University of Utah; secretary-treasurer: Edgar A. Whiting, Cornell University; editor: Porter Butts, University of Wisconsin.

American College Public Relations Association

President: Horace Reneger, Tulane University; secretary-treasurer: Max E. Hannum, Franklin and Marshall College.

1948 Convention Secretary: E. D. Whittlesey, University of Denver.

National Association of College Stores

President: A. W. Littlefield, Barnes and Noble, Inc., New York, N. Y.; executive secretary: Russell Reynolds, 189 West Madison Street, Chicago.

PRODUCT INFORMATION

Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 41-72. Pages 68-72 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

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USE THIS CARD

This card is detachable and is provided for your convenience in obtaining information on all items advertised in this issue or described in the "What's New" Section. See reverse side.

FIRST CLASS
PERMIT NO. 136
SEC. 510 P. L. & R.
CHICAGO, ILL.

BUSINESS REPLY CARD
No Postage Stamp Necessary if mailed in the United States

2 CENTS POSTAGE WILL BE PAID BY

COLLEGE AND UNIVERSITY BUSINESS
919 NORTH MICHIGAN AVENUE
CHICAGO 11, ILLINOIS

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Redesigned Lamp

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Pentrate for Fire Fighting

451 Detroit-Michigan Stove Co.
Counter Griddles

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Metal Furniture Line

453 Pittsburgh Plate Glass Co.
Floor Hinge

454 The Stewart Iron Works Co.
Outdoor Seating

455 Oakite Products, Inc.
Dishwashing Compound

456 Breuer Electric Mfg. Co.
All-Purpose Floor Machine

457 R. M. Hollingshead Corp.
Whiz Unifoam Concentrate

458 Hanovia Chemical & Mfg. Co.
Safe-T-Aire Fixtures

459 The Bolsey Corporation of America
Film Splicer

460 Radio Corporation of America
RCA "400" Projector

461 The Sherwin-Williams Co.
Weed Killer

462 Liquid Conditioning Corp.
Silica-Removal Unit

Key

463 Denoyer-Geppert Co.
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464 General Electric X-Ray Corp.
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465 Doughnut Corp. of America
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466 The American Laundry Machinery Co.
Cascade Washer

467 W. C. Dillon & Co.
Hone for Pencil Sharpeners

468 Insinger Machine Co.
Commodore Dishwashing Machine

469 Sanitary Aids Co.
Torpedo Insecticide Spray Gun

470 Duro Industries
Plasti Asphalt Tile Renewer

471 Victor Animatograph Corp.
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472 Cory Corp.
Cory Serving Decanter

473 Bradley Washfountain Co.
Catalog No. 4701

474 John Van Range Co.
"100 Years of Service"

475 Wade Mfg. Co.
"A New Principle in Grease Interception"

476 Benjamin Electric Mfg. Co.
"45 Years of Progress in Lighting"

477 GoldE Mfg. Co.
Bulletin No. 473

478 Pan American Coffee Bureau
"Coffee"

479 Cling Peach Advisory Board
"How Famous California Chefs Use Canned Cling Peaches"

480 Congoleum-Nairn, Inc.
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September, 1947

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

WHAT'S NEW					
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NAME _____ TITLE _____

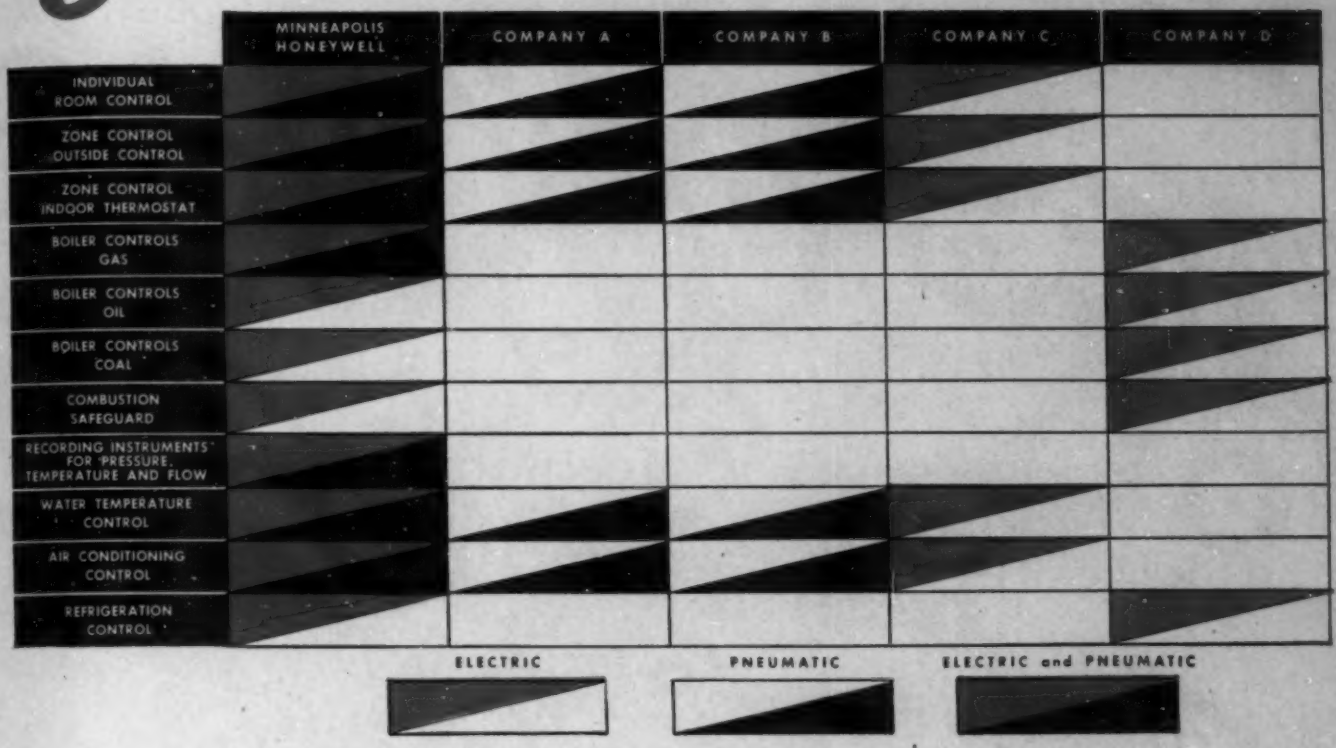
INSTITUTION _____

ADDRESS _____ CITY _____ ZONE _____ STATE _____

FOR BUSINESS OFFICIALS OF COLLEGES · UNIVERSITIES & RESIDENT ACADEMIES

ONLY HONEYWELL gives you

Controls for Every Purpose!



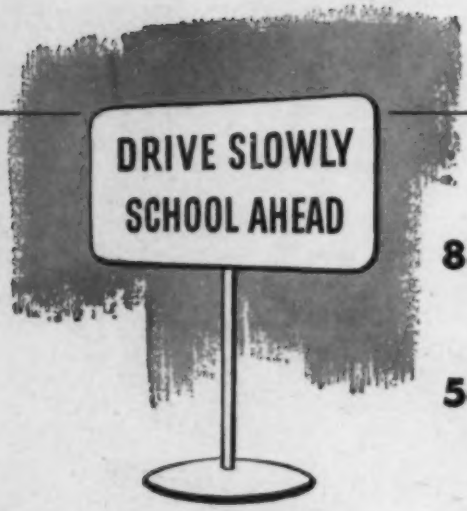
THE chart tells the story! Only Minneapolis-Honeywell can supply a complete line of controls to meet every college and university requirement. The uniformity of design and quality you get when installing controls of one manufacturer make for dependable, coordinated operation throughout all the buildings on the campus—from the heating plant to the lecture room. You benefit first by placing full responsibility for all phases of automatic control with a single manufacturer. It's this same manufacturer—Minneapolis-Honeywell—who is able to give you unbiased advice based on broad engineering experience, about every type of control. And Honeywell maintains a nation-wide staff trained to provide service from plan stage throughout the life of every installation, electric or pneumatic.

Backing this comprehensive operation is the Honeywell reputation for dependable performance, established for over 60 years. Standardize on Honeywell—the leader . . . Minneapolis-Honeywell, Minneapolis 8, Minnesota . . . In Canada: Toronto 12, Ontario.

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

Only Sloan

can say this:



83% OF ALL SCHOOL SYSTEMS* ARE SLOAN EQUIPPED—

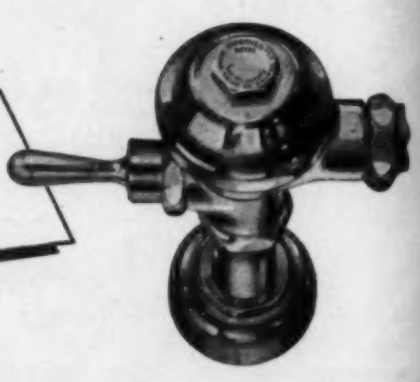
54% OF ALL SCHOOL SYSTEMS ARE EXCLUSIVELY SLOAN!

There are several reasons for Sloan's pre-eminence. For one thing, maintenance costs are reported as low as ¼ of 1c per Valve *per year.* Then too, Sloan Flush Valves save water; they protect public health by preventing back syphonage; they can now be whisper quiet; they have unlimited life—yet cost no more. That is why more Sloan Flush Valves are sold than all other makes combined.

SLOAN VALVE COMPANY • 4300 W. Lake St., Chicago, Ill.

**In cities of 25,000 population and over.*

sloan *Flush* valves



Everything For the School or College

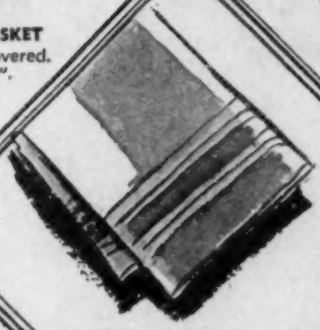
Write Us About Any of Your Furnishing Problems

Everything for the Resort and Hotel

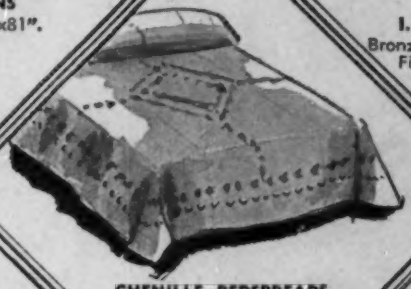
ASBESTOS LINED BASKET
Brown Leatherette covered.
Ht. 13". Width 12".
5D-1915
Doz. $13.50

SCRIM CURTAINS
Sun Tan color. 35"x81".
1-6205
Pair $1.97

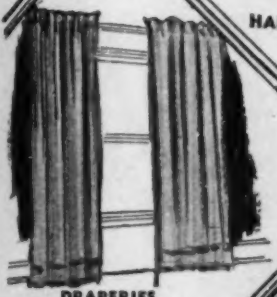
I. E. S. FLOOR LAMP
Bronze Finish—Fiber Glass Fire Resistant Shade.
2E-143
Each $13.95



HAND AND FACE TOWELS
1-2210 16"x32"
Doz. $2.52

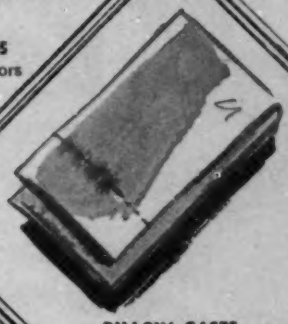


CHENILLE BEDSPREADS
Full or Twin—Plain Colors
1-4146
Each $6.95



DRAPERIES
Made to order or already made up. Write us.

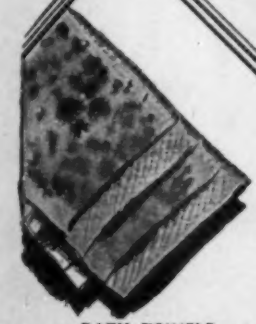
BED SHEETS
Write us. Specify sizes and grade.



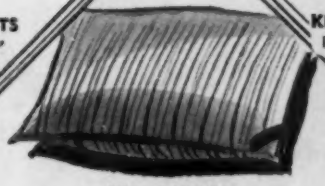
PILLOW CASES
Write us — specify grade.

50% WOOL BLANKETS
1-5103B 72"x90"
Single Each $5.95

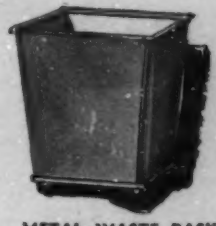
KRENE SHOWER CURTAINS
Plastic — Assorted colors.
Size 6' x 6'
1-6540
Each $2.75



BATH TOWELS
1-2123 18"x36"
Doz. $4.98



BED PILLOWS
Steri-San process sterilized
21" x 27"
Each $1.45
and $2.95



METAL WASTE BASKET
No. 1213, 11" top, 13" Ht.
Doz. $15.95

Write Us About Carpeting, All Types of Furniture, Draperies and Curtains

We Have Served Hotels and Institutions for Over 50 Years

Clark Linen & Equipment Co.

303 W. Monroe St., Chicago 6, Ill.
Phone: STAte 0520

Established 1899

3841 N.E. Second Ave., Miami 37, Fla.
Phone: Miami 7-5781

For popular breakfasts
Your very best bet
Is this economical
QUAKER SEXTETTE!

ALL SIX OF THESE READY-TO-EAT *QUAKER CEREALS*

NOW AVAILABLE IN HANDY INDIVIDUAL SIZES

Yes, now you can suit all cereal preferences with a quality Quaker cereal.

If it's shredded wheat fans you're serving, they'll go for Muffets, the *round* shredded wheat that's extra crisp and tender. Or they may prefer Quaker Puffed Wheat and Puffed Rice Sparkies, the famous "shot-from-guns Puffed Grains." If corn, rice or wheat flakes are their choice, they'll appreciate the fresh, tasty crispness of Quaker Corn Flakes, Rice Flakes and Wheat Flakes.

Let your customers take their pick of these delicious Quaker cereals. Serve all six in the individual packages that keep them temptingly crisp and fresh. Quaker's handy six can help you serve meals you get praised for—and at a lower cost.

The Quaker Oats Company, Chicago 4, Ill.

RED MAGIC

That Helps Make The Food You Serve Even More Appetizing!

To the good, sturdy food you serve, Heinz Tomato Ketchup adds appetizing magic that helps make the general fare of a college table more gratifying to the tastes of the students. That's why many college and university stewards *find that it pays to keep the world-famous bottle within easy reach!*

Heinz Ketchup is a "friend from home" to most college students. They associate the familiar favorite with good food. On steaks, roasts, fish entrees, hash or stews, this luscious sauce bestows the flavor of sun-ripened tomatoes seasoned with rare spices.

It is economical to serve, too. Extra rich in taste and goodness, it goes further — both in pleasing customers and serving more of them!

ASK YOUR HEINZ MAN ABOUT—

HEINZ
TOMATO KETCHUP

. . *Unequalled for Beauty and Long Life*

Wood is remarkable for its strength and lightness. Engineers find it a superior material where high resistance to bending or compression is needed. Because of these qualities wood, through the ages, has had no equal as a material for fine furniture.

Not only is wood unequalled for a strength that gives long life to furniture . . . it is also unequalled for *beauty*. Wood, when fashioned and formed, polished and finished, possesses in a high degree a charm comparable to that which inspires man's admiration for fine paintings and objets d'art.

Carrom, however, does still more with wood than capture its beauty and utilize its strength in the fine furniture Carrom craftsmen produce. Carrom fine wood furniture is made exclusively for institutional use. By the extra care employed in selecting and seasoning hardwoods, forming posts, legs, bed stretchers and other vital parts from solid stock, and fitting joints securely, Carrom gives you institutional furniture unequalled for serviceability.

When you select furniture for your institution, do so with a view to permanence, beauty and economy. Choose Carrom Fine Wood Furniture made by craftsmen who "build for the decades."

CARROM INDUSTRIES, INC., LUDINGTON, MICH.

An Example of Carrom Strength

Carrom bed posts are solid throughout, one piece from end to end, not "built up" but turned from a single, solid piece of Northern Hard Birch not less than 2½ inches square. Unnecessary strength? We think not. For, if the need ever arises, the margin of extra strength is there. Carrom construction withstands *abuse* as well as normal *use*.

CARROM

WOOD FURNITURE FOR COLLEGE SERVICE

Better Performance on 16 mm. Sound

"Premier-20"

16MM. SOUND PROJECTOR

Close-up of new swing-out gate, showing gate in open position

The new "Premier-20" embodies many advanced features which combine to create new standards of 16mm. sound performance . . . convenience . . . and efficiency of operation. The new swing-out gate, shown above, permits easy cleaning of the aperture plate and pressure shoe . . . without ever disturbing the lens focus.

New Richer Tone Quality—The latest 12-inch Jensen Permanent Magnet Dynamic Speaker reproduces sound faithfully, realistically . . . has adequate power for moderate size auditoriums.

Streamlined Carrying Cases—Rugged . . . scratch-resistant . . . easy to clean, they offer complete protection for your Ampro projection equipment.

New Ampro Slide and Filmstrip Projector

New from every angle, this Ampro Model 30-D Projector for 2"x 2" slides and 35mm. filmstrips is ideally suited for classroom use. Simple to operate . . . with curved film guideways to guide filmstrip in exact position for crisp, brilliant pictures. Automatic snap-action, self-centering slide carrier assures perfect focus . . . with one hand operation. Quick tilting . . . sharp, clear reproduction . . . lift-off carrying case . . . many other outstanding features.

Amproslide Model 30-D

AMPRO

8mm. Silent • 16mm. Silent
16mm. Sound-on-film • Slide Projectors
16mm. Arc Projectors

A General Precision Equipment Corporation Subsidiary

Write Today...

Mail coupon today for illustrated circulars giving full details, specifications and prices on these as well as other Ampro classroom projectors . . .

CUB 947

AMPRO CORPORATION
2835 N. Western Ave., Chicago 18, Ill.

☐ "Premier-20" 16mm. Sound-on-film Projector.
☐ Amproslide Model "30-D" Dual Purpose Projector.

NAME_____

ADDRESS_____

CITY_____ STATE_____

Here's convenience, modern design and low-cost operation—the new 1947 McCray Reach-Ins come in 60, 40, 30, 20 and 12 cu. ft. capacities.

World-famous for fresh food . . .

. . . the new 1947 McCray Koldflo models designed especially for hotels, restaurants, clubs, hospitals and institutions.

Perishables stay fresh and nutritious under modern McCray's Koldflo refrigeration (a completely self-contained system).

Protect your investment and your reputation for fine food by serving tempting, fresh-tasting meals daily.

See your McCray dealer or write McCray Refrigerator Company, 775 McCray Court, Kendallville, Indiana.

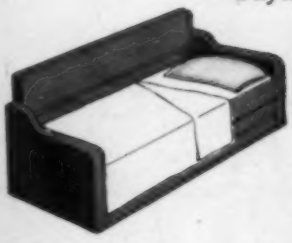
GO MODERN WITH

McCray
KOLDFLO

SIMMONS rooms win top honors with students... and schools

SIMMONS room furnishings are winners. Students like their fresh, modern styling which invites relaxation. Popular with school officials, too, because SIMMONS furniture... sturdily constructed... retains its beauty even after years of hard service.

These important features are the reasons why more and more schools are buying SIMMONS furniture for student rooms.



The group pictured above... a smartly designed Beautyrest Sofa Bed, and strong, fireproof steel furniture in delightful amber mahogany ... is only one of many attractive SIMMONS combinations now available. See the SIMMONS distributor nearest you.

Sofa Bed with slip cover removed

DISPLAY ROOMS
Chicago • New York
San Francisco • Atlanta

Simmons Company

Merchandise Mart • Chicago 54, Illinois

Send for free catalog of Simmons Steel Furniture and Sleep Equipment

METAL FURNITURE IS: *Strong • Fireproof • Marproof • Durable • Economical • Modern*

This good-looking sofa, with a Beautyrest mattress, provides real sitting comfort.

It is easy to flip up the hinged back rest with one hand.

Slip cover is removed from mattress. Blankets and sheets are in place, ready for instant use.

The versatile Sofa Bed makes a comfortable place for study or reading—it has the perfect surface—a Beautyrest.

Simmons Sofa Beds

Perform Double Duty

SIMMONS Sofa Beds provide the ideal answer to today's pressing needs for more dormitory space. These versatile pieces offer maximum utility, comfort, and style.

By day, this good-looking sofa provides sitting comfort. At night, it quickly becomes a luxuriously comfortable bed, which cushions the sleeper on the famous BEAUTYREST mattress and box spring base.

The SIMMONS Sofa Bed requires no heavy lifting or strenuous tugging to convert it into a sleep unit. Even a child can lift up the patented hinged back—which automatically locks in place—and remove the slip cover from over the bedding.

This long-lived SIMMONS Sofa Bed comes in two smart styles. It is upholstered in a selection of modern textured weaves that stand hard wear and minimize soiling caused by daily use. This sleep unit requires only 82″ x 42″ floor space, and is only 33″ in height.

Estimate the number of SIMMONS Sofa Beds you will need, and get in touch with the SIMMONS distributor nearest you for full details and prices. Or, write directly to

SIMMONS COMPANY

Merchandise Mart, Chicago 54, Illinois

DISPLAY ROOMS

Chicago 54, Merchandise Mart **New York 16, One Park Avenue**

San Francisco 11, 295 Bay St. **Atlanta 1, 353 Jones Avenue N.E.**

FIRST ASSISTANT TO

THE WORLD'S FINEST TEACHERS

Filmosound

Speeds Instruction, Helps Learning, Lightens Teaching Loads

Never have American teachers done a finer job than they are doing now. With school and college enrollments at all-time high levels, they are carrying the heaviest loads in the history of our school system.

Filmosound motion pictures, used as an aid to personal teaching, are helping thousands of teachers handle today's large classes effectively . . . by lightening the teaching load and speeding instruction. In fact, research studies have proved that students learn 40% more, faster, when an audio-visual program is an integrated part of the curriculum.

For such a program, the nation's leading schools and colleges have long preferred Filmosound, the Bell & Howell 16mm sound-film projector . . . because Filmosound assures professional-quality performance. And—so important for school service—Filmosound is simple and mistake-proof in operation, easy to maintain, and completely dependable.

No assistant to the teacher can bring you finer references. Write today for Filmosound illustrated literature to Bell & Howell Company, 7192 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D. C., and London.

1907 40th ANNIVERSARY 1947

Precision-Made by

Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture Equipment for Hollywood and the World

FOR NEW BUILDINGS OR PRESENT STRUCTURES

Weisway

CABINET SHOWERS

A typical battery installation of Weisway Cabinet Showers

The Weisway Standard Cabinet Shower meets the urgent need for a genuine quality shower. Precision-built of service-tested materials. Walls are 14 B & S gauge aluminum alloy finished white baked-on enamel. Receptor is Armco Iron, one-piece vitreous porcelain enameled, with Foot-Grip, No-Slip floor surface. Meets quality standards required in buildings of best construction.

Mail coupon now for full information. *Weisway Standard Model Cabinet Showers are now available for prompt shipment.*

HENRY WEIS MANUFACTURING CO., INC.
939 Weisway Building, Elkhart, Indiana

Gentlemen: Please send me detailed information about Weisway Standard Cabinet Showers.

Name_____

College or University_____

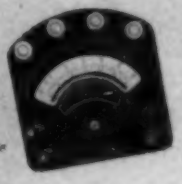
City_____ State_____

WESTON *Instruments*

FOR LABORATORY AND CLASSROOM

MODEL 301

Available in DC and AC rectifier-type panel instruments for most requirements. Dependable and accurate—ideal for all-around laboratory use. Angle-type mounting bases available.



MODEL 280

Miniature DC portables, with knife-edge pointers and mirror scales to eliminate parallax and afford full advantage of the accuracy of the instrument.

MODEL 430

An extensive group of portables, for general testing and all-around use. Large rectangular opening permits easy reading of mirror scale.

Weston's complete family of instruments and testing equipment fills the bill for every school laboratory need. For further information, write Weston Electrical Instrument Corporation, 687 Frelinghuysen Avenue, Newark 5, New Jersey.

WESTON *Instruments*

Panel, Portable and Laboratory Instruments
Tube Checkers • Test Equipment • Illumination Meters
Sensitive Relays • Thermometers • Photronic Cells

DARE: *To 10,000 "Confirmed Skeptics"*

to write on, walk on, smear beautiful Stainproof VARLAR

—and prove it's the most amazing wall covering ever known!

Varlar is so enduring it can be washed 25,000 times—and still look new! Not a claim—but *fact*, proved by critical tests in the laboratory and actual usage. Proved, too, that oil, ink, grease, mercurochrome, jam, crayon, syrup, candy, vinegar, pencil, lipstick, hot kitchen grease, dirt accumulation —STAINS OF ALL KINDS—easily, quickly wash off Varlar with ordinary soap and water.

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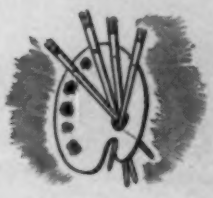

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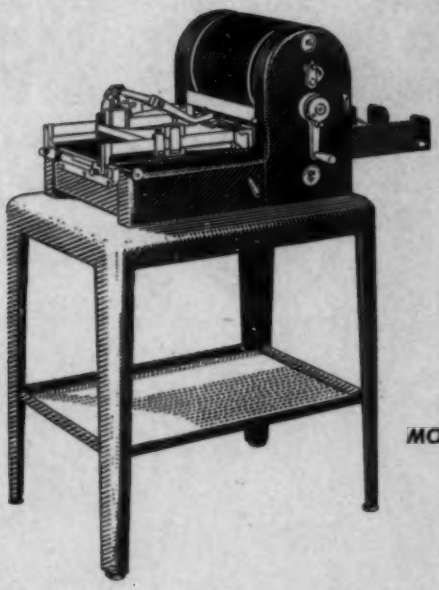

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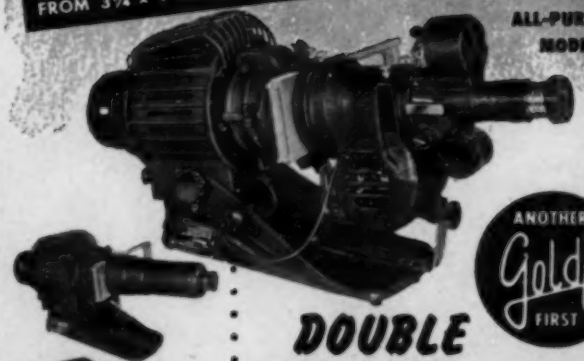

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The Motor-Weighted *Finnell* shown below at left is equipped with a *Feather-Touch* Safety Switch that provides *complete* automatic switch control. Switch works with either hand from either side of handle. When handle is released, machine stops. Self-propelled . . . glides over floor with virtually effortless guidance. Four sizes: 11, 15, 18, and 21-inch brush diameter. Inset shows machine with *Finnell* Dispenser for hot waxing.

The *Finnell* shown below at right can be reduced to a smaller size machine (see inset) for smaller areas. Note how easily this *Finnell* goes beneath furnishings. Divided weight makes it exceptionally easy to operate. Yet it is powerful . . . fast . . . thorough. Three sizes: 13, 15, and 18-inch brush diameter.

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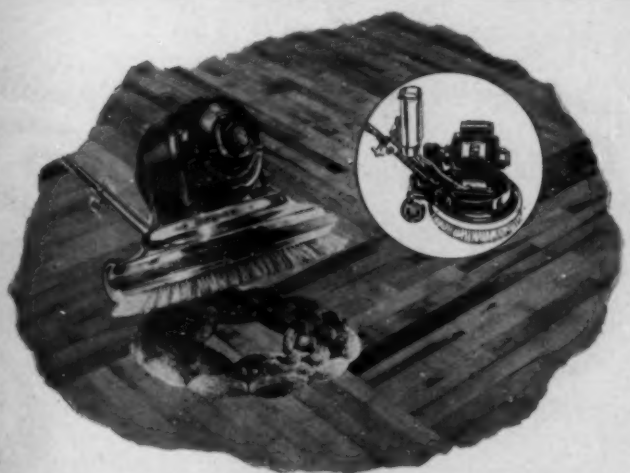
A *Finnell* Scrubber-Vacuum for Cleaning Large-Area Floors.



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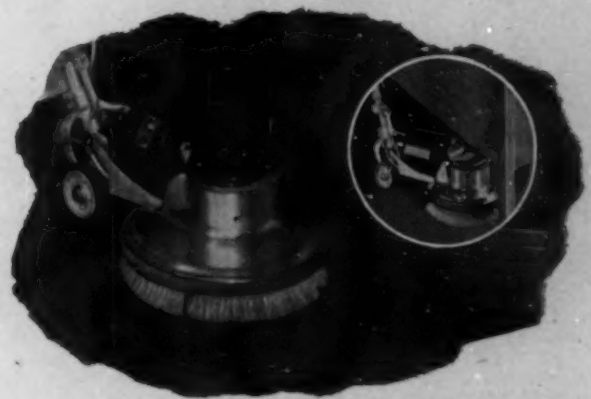

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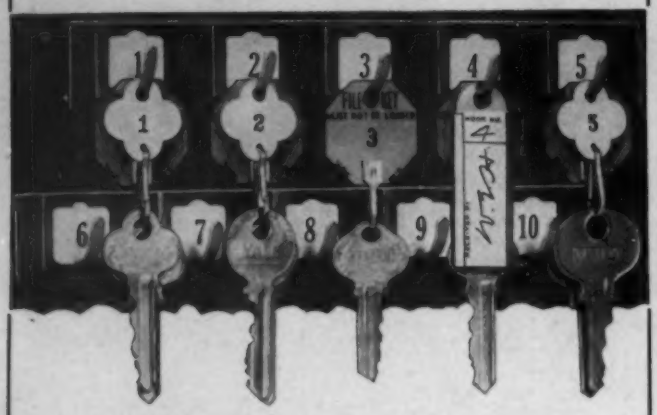

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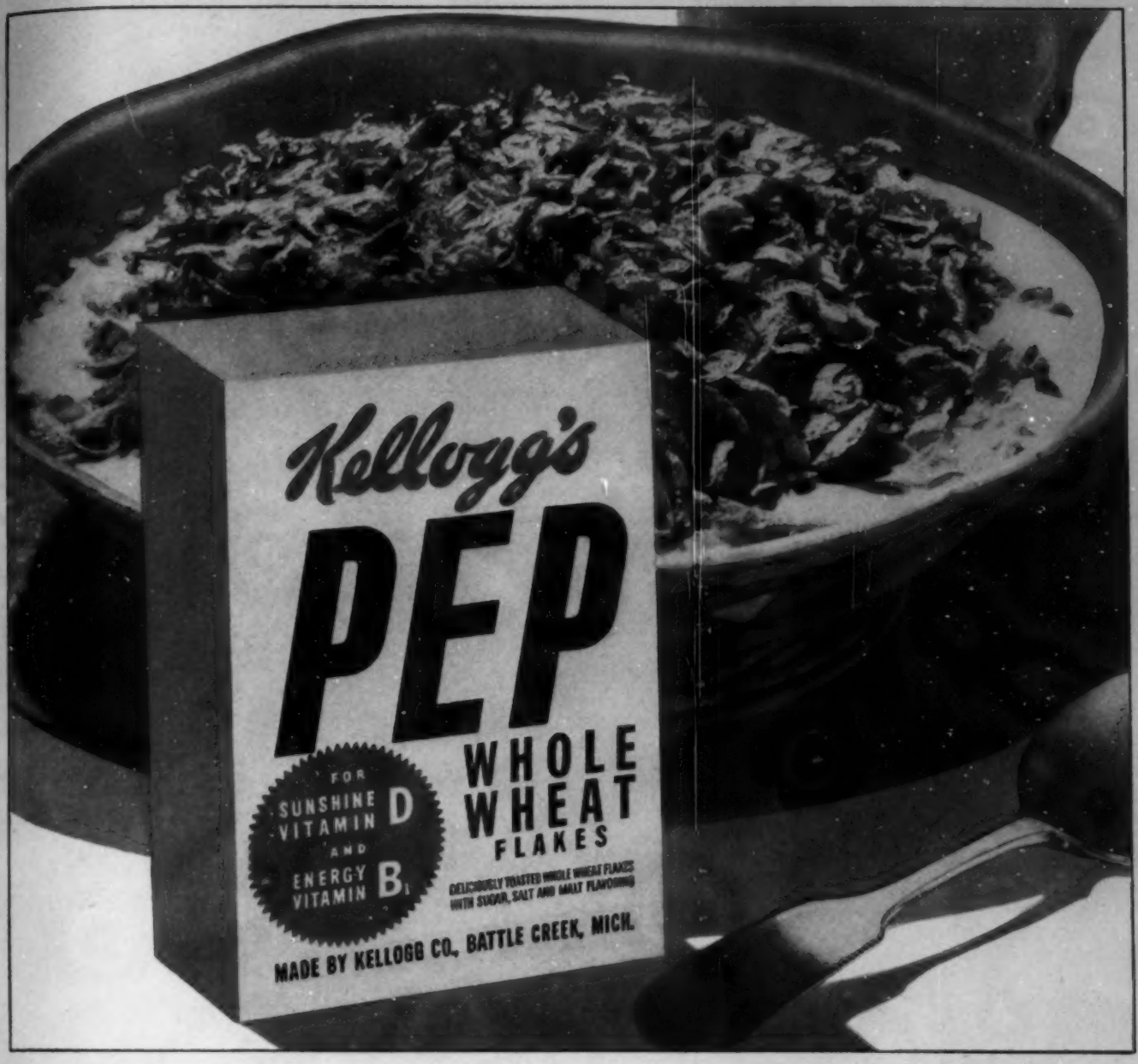
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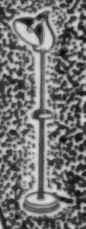

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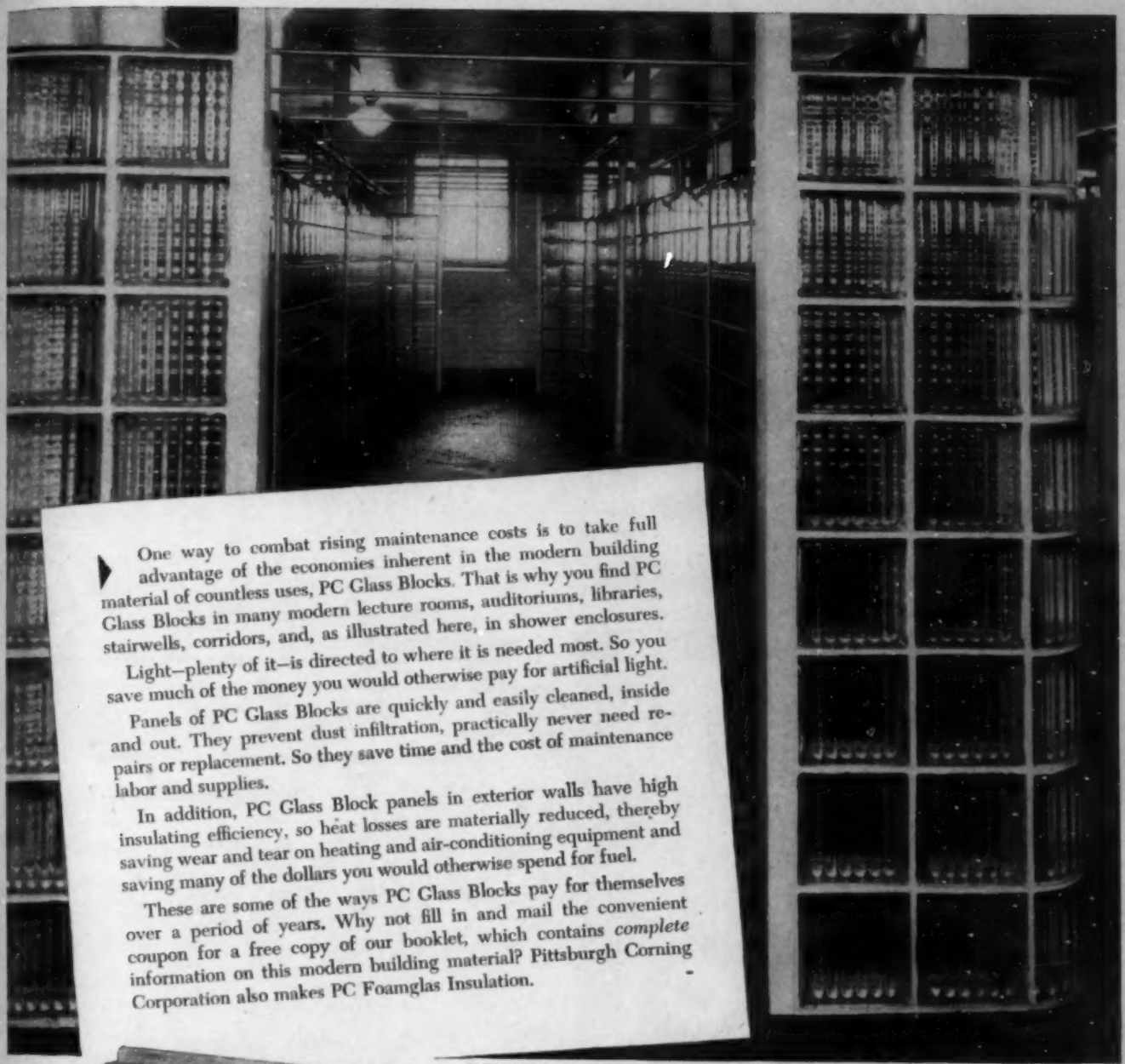

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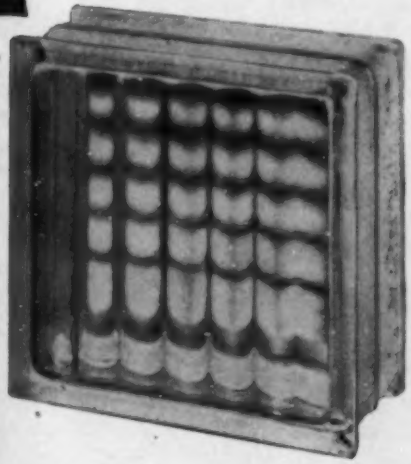

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"The chimes were installed rather late in the season . . . I expected a rather poor attendance for their reception; but I am happy to inform you that not only was the attendance far beyond our expectations on the day of installation but that people have returned to hear them, keeping our attendance considerable above the average for this time of the year."

From a letter to the Maas Organ Co., by Rev. W. S. Hinman, Ph.D., St. John's Lutheran Church, Summit, New Jersey.

Maas Chimes are a satisfaction to men and women everywhere. Write for descriptive literature. (Specify type of organ you have.)

MAAS CATHEDRAL CHIMES

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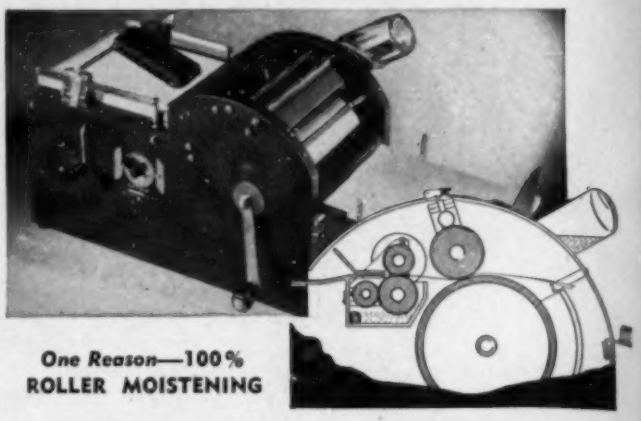

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This unique series of rollers is one of REX-O-graph's great contributions to modern copymaking. They apply fluid uniformly to copy paper in exactly the right amount for brighter, sharper copies—without the need for fluid-wasting felt wicks or intricate pump mechanisms. Automatic, requiring no adjustment, they provide instant starting, too, and faster, smoother operation. There is no waiting for wick saturation. The exclusive **100% Roller Moistener** is one reason why you get more copies from each Master and up to 2000 copies from a pint of fluid. Only REX-O-graph can offer this fluid saving, and greater copy-making efficiency.

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School authorities also prefer Bradleys because of economies in water consumption, maintenance and installation costs plus long-life durability. One DUO serves two persons simultaneously, replaces two ordinary single-person wash basins, and the easily-cleaned DUO sprayhead takes the place of four faucets.

Furnished in stainless steel, or enameled iron. Finished all-over in white acid-resisting vitreous enamel. Nationally distributed through plumbing wholesalers. BRADLEY WASHFOUNTAIN CO., 2353 W. Michigan Street, Milwaukee 1, Wisconsin.

Write for Illustrated Bulletin 464-D.

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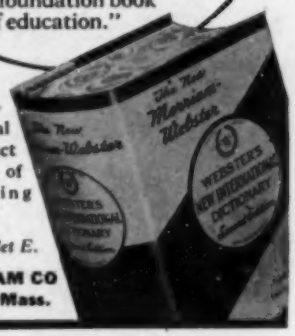

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Springfield 2, Mass.

CASE HISTORY No. 39

IN A SERIES OF SUCCESS STORIES WITH THE LEGGE SYSTEM OF 'NON-SLIP' FLOOR MAINTENANCE

INSURANCE COSTS SLASHED 42% by Floor Safety Program

THIS large organization had dangerously slippery floors. Constant slip and fall accidents boosted insurance rates, until the insurance company itself stepped in . . . advised a program of floor beauty-with-safety with the Legge System of Non-Slip Floor Maintenance.

Accidents dropped 98% within a year. And down came insurance premiums twice! . . . for total savings of 42%.

INSURANCE COMPANIES HAVE THE FACTS

In many other institutions, office buildings and plants, casualty insurance companies have recommended the Legge System for non-slip floor beauty. Their safety records prove that Legge scientific maintenance makes floors lastingly non-slip; practically eliminates costly accidents.

CORRECT FLOOR MAINTENANCE COSTS LESS

LEGGE'S 3-WAY PROTECTION

- √ Non-slip Safety
- √ High, Lustrous Finish
- √ Floor Preservation

YOUR 3-WAY SAVINGS

- √ Reduced Insurance Premiums
- √ Maintenance Costs 50% Lower
- √ Floor Replacement Unnecessary

Legge floor polishes have also been approved as constant anti-slip protection by Underwriters' Laboratories and other leading organizations.

YOUR OWN FLOOR SAFETY ADVISOR

You get a complete advisory service with the Legge System. A trained Legge floor expert engineers the danger out of your floors. He investigates your conditions . . . prescribes a program for your needs . . . shows your maintenance staff proper methods . . . then checks results regularly.

This tailor-made program actually costs less. One basic polish treatment usually lasts months, sometimes years — saves resurfacing labor, takes 25% less materials. And your floors are preserved; costly replacement made unnecessary.

YOU SAVE THREE WAYS

Lower maintenance costs . . . prevent floor replacement . . . pay lower insurance premiums and fewer accident costs. How you can do all three is told in our free booklet, "Mr. Higby Learned About Floor Safety the Hard Way." It's yours without obligation. Clip this coupon to your letterhead and mail today.

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Gentlemen:
Please send me your free book, "Mr. Higby Learned About Floor Safety the Hard Way."

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Type of Floor _____

Approx. Area _____ sq. ft.

EU9

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STREET SHOES WON'T RUIN THIS FLOOR!

WHEN YOUR gym is used as the town meeting place, it needs real protection. Ordinary surface finishes chip, scratch, and become unsightly. Treat your floor with Penetrating Seal-O-San to make it wear-resistant. Then it will not scratch because Seal-O-San penetrates deeply into the wood cells, seals cracks and crevices, welding the entire structure into a tough, plastic unit. It is easy to apply. Floor maintenance is easier because the dirt stays on top. Write for details and demonstration.

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WANT ADVERTISEMENTS

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Executive Accountant — Institutional experience, seeks post in eastern, midwestern college, university or private institution, as treasurer or business manager; would consider assistant position with opportunity; fine background in finance, promotion, maintenance and administration; highest personal qualifications and references. Write Box CW22, COLLEGE AND UNIVERSITY BUSINESS.

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Business Officer—Fifteen years successful experience all phases college administration; prefer budgetary control, accounting and investments, in which fields I am expert. Write Box CW21, COLLEGE AND UNIVERSITY BUSINESS.

Business Officer—Regular Army Colonel retiring to establish permanent home, desires position as business officer of college or school located in eastern states; executive and administrative experience as Quartermaster and on general staff; available about January 1, 1948. Write Box CW23, COLLEGE AND UNIVERSITY BUSINESS.

Purchasing Agent—Fifteen years institutional purchasing experience; presently, and during past four years, assistant director of purchases for one of the states operating under centralized purchasing system, purchasing for state university, colleges, and welfare institutions; interested in position as purchasing agent, or purchasing agent and business manager. Write Box CW24, COLLEGE AND UNIVERSITY BUSINESS.

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Business Manager—To supervise plant maintenance, purchasing and non-academic personnel; prefer young man with good training, experience, and growth prospects; opportunity for advancement. Write Kellogg McClelland, Treasurer, Knox College, Galesburg, Illinois, giving details of experience, qualifications and salary requirements.

Address replies to

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3 cheers for Sampson & Sandow Bath Towels

They're both back in the Lineup!

SAMPSON ribbed and SANDOW plain weave terry bath towels are getting hearty cheers from critical buyers for their sturdiness, long-wear and extra-absorbency. Ask our nearest representative for information, or write:

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WHAT'S NEW

SEPTEMBER 1947

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 40. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your request to the manufacturer. If you wish other product information, just write us and we shall make every effort to supply it.

Clarke DUO Sander and Polisher

The Clarke DUO Sander and Polisher is a portable electric device which is light enough for one hand operation, yet powerful enough to perform all types of sanding, polishing, buffing and other rotary operations on a 5 inch disc. It will prove of value in the maintenance of furniture and equipment in all college and university buildings.

The trigger switch and pistol handle make it easy to operate and control the new unit with one hand and a strategically placed knob provides easy gripping when two hand operation is desired. The unit sands or polishes wood, metal and plastics and can be used with a 5 inch sandpaper disc or lamb's wool buffer or 3 inch sandpaper or rubber disc.

The spindle turns at 5000 RPM idle speed which gives a normal load speed of 3000 RPM. The unit has an attractively styled die cast aluminum housing and is equipped with a 10 foot, rubber covered extension cord. The motor is 115 volt, AC-DC. **Clarke Sanding Machine Co., Dept. CUB, Muskegon, Mich. (Key No. 447)**

Elevator Hall Lantern

Attractive as well as useful, the new combination hall lantern and car position indicator developed by Otis Elevator Company can be used for both new elevator installations and modernization programs. It is designed to harmonize with any decorative motif while offering dual utility.

The lantern indicator has amber floor numerals which light individually to indicate the position of the elevator and illuminated arrows tell the direction in which the car is traveling. Strips of white lucite light green or red to signal which is the next car, up or down, and at terminal landings. A soft-toned chime sounds when these signals light. **Otis Elevator Co., Dept. CUB, 260 Eleventh Ave., New York 1. (Key No. 448)**

Redesigned Lamp Unit

The Grenadier two lamp semi-direct lighting unit has been redesigned. The improvements include increased shielding of 35 degrees parallel to the lamps and 25 degrees normal to the lamps, removable side panels and louvers for easier maintenance, accessory opaque reflectors or slotted reflectors placed immediately above the lamps for increased downward illumination, heavier gauge metal, whiter plastic side panels and a new finish. **The W. F. Wakefield Brass Co., Dept. CUB, Vermilion, Ohio. (Key No. 449)**

Pentrate for Fire Fighting

Pentrate is a new product developed to make water wetter. Scientifically compounded of chemical ingredients, 1 per cent of Pentrate added to ordinary water gives the combined solution speedy penetrating and spreading qualities, making it more effective in fire fighting. The treated water will get to the heart of a deep seated, smoldering fire much more effectively than untreated water.

Pentrate has less corrosive effect than water and is no more injurious to metals or wood than water itself. When added to water, it has the effect of freeing the surface tension, thus allowing the globules of water to spread out in all directions and cover more area. In this way the water has a better chance to spread, penetrate and soak into an object on fire, to cover broken or rough surfaces more readily and to penetrate deeply into overstuffed furniture, textiles, coal piles and other solid masses in which fire may be smoldering. **American-LaFrance-Foamite Corp., Dept. CUB, Elmira, N. Y. (Key No. 450)**

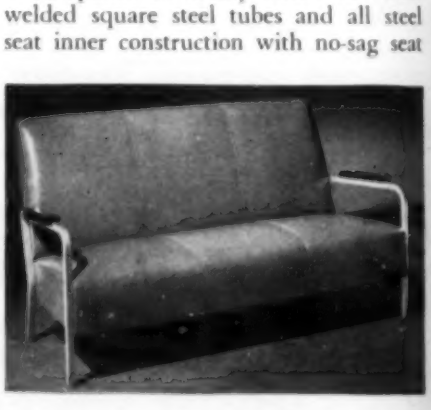
Counter Griddles

The full line of institutional cooking equipment made by the Detroit-Michigan Stove Company has been augmented by new Garland counter griddles. Four models are offered with a choice of black japan or stainless steel finish. Two models have two standard open top Garland burners in addition to the griddles and two have griddles only. Griddle sizes in both types are available in 18¾ by 24 inch and 18¾ by 30 inch sizes. The units have new streamline styling and other features which improve efficiency and convenience. **Detroit-Michigan Stove Co., Dept. CUB, 6950 E. Jefferson Ave., Detroit 31, Mich. (Key No. 451)**

Metal Furniture Line

A new line of sturdy, colorful, comfortable metal seating furniture has recently been announced by Royal Metal. The new pieces include a three person settee, a two person settee and an arm chair in addition to the arm and side chairs previously developed by this company.

The pieces are solidly constructed with welded square steel tubes and all steel seat inner construction with no-sag seat



springs. The frames are available in plastic coated finish in a choice of thirteen colors, either plain or dimpled, and the upholstery covering is in leatherette in any one of 32 colors. Non-marring floor glides are used on all legs. The new units offer attractive, comfortable seating facilities for the waiting room, reception room, office or lounge. **Royal Metal Mfg. Co., Dept. CUB, 175 N. Michigan Ave., Chicago 1. (Key No. 452)**

Checking Floor Hinge for All-Glass Doors

The new Pittco hinge is a basic, double acting, compact, lifetime checking floor hinge for use with all-glass doors. It can be converted to a single acting hinge with use of a simple stop on the transom bar. It was developed for use with heavy doors and makes possible the supplying of both door and hinge as an integrated unit.

Installation of the new hinge is simple and its design reduces maintenance to a minimum. Most compact, the hinge is only 6¼ by 6¼ by 4½ inches in size. Yet it provides for positive door speed control and separate checking control. Laboratory tests put the initial models through 500,000 closings without showing signs of failure.

All work parts are permanently sealed in oil and the controls may be reached without removing the door or the threshold. Anti-friction bearings are used and working parts are of hardened and ground tool steel. The graduated pressure areas in the normal 90 degrees arc include spring load in the initial 15 degrees area to prevent opening from wind pressure and at 90 degrees a hold-open position with graduated pressures built up in the intervening areas. **Pittsburgh Plate Glass Co., Dept. CUB, 632 Duquesne Way, Pittsburgh 22, Pa. (Key No. 453)**

Outdoor Seating

The new Samson all-steel outdoor settee is designed for long, hard wear. The framework, after fabrication, is hot-dipped galvanized and the No. 15 gauge steel slats, painted green, are

bolted to the framework with flat, roundhead galvanized bolts which have no rough edges.

The slats have rounded corners to eliminate possibility of catching clothes on sharp edges and the settee will not splinter, rot from exposure or deteriorate. It is designed for comfort, wear and attractive appearance and is available in three lengths, 4, 5 and 6 feet. **The Stewart Iron Works Co., Inc., Dept. CUB, Covington, Ky. (Key No. 454)**

Dishwashing Compound

Oakite Composition No. 66 is especially designed for use in automatic dishwashing and glasswashing machines. It is readily and completely soluble in water at normal temperature and has excellent wetting-out and free-rinsing properties, thus assuring film-free dishes and sparkling glasses. The compound also minimizes hard water scale build-up in washing equipment, thus reducing maintenance problems.

When used as directed, Oakite Composition No. 66 is said to remove lipstick deposits, vegetable and animal fats, milk, coffee stains and other food residues quickly and easily. **Oakite Products, Inc., Dept. CUB, 157 Thames St., New York 6. (Key No. 455)**

All-Purpose Floor Machine

The new Tornado Floor Machine is a motor-driven brush capable of performing all types of floor work; scrubbing, polishing, waxing, sanding, steel-wooling and shampooing. Suitable brushes for any type of floor or floor covering are available and the machine can be equipped with a solution tank which feeds directly into the base of the bristles.

Five models, ranging from ¼ to 1 hp., are available with operating brush spreads from 12 to 20 inches. Gears are completely enclosed in cast aluminum housings and all models have sturdy, splashproof, continuous load motors. The machine is quiet and easily handled, perfectly balanced with correct weight and pressure for thorough and effective cleaning.

The manufacturer recommends using the new floor machine with the Tornado Vacuum Cleaner for safe, quick floor conditioning and cleaning with savings in time and labor. The vacuum cleaner has powerful suction to lift surplus water from the floor and from cracks and crevices. The two units used in conjunction offer quicker cleaning and drying. **Breuer Electric Mfg. Co., Dept. CUB, 5124 Ravenswood Ave., Chicago 40. (Key No. 456)**

Whiz Unifoam Concentrate

A highly concentrated liquid cleaner for floors, floor coverings, painted walls and other surfaces has been announced as Whiz Unifoam Concentrate. Combining a pure vegetable oil base fortified with a wetting agent, the product is designed to be soluble in hot or cold water, to lather freely and not to streak or film. **R. M. Hollingshead Corp., Dept. CUB, Camden, N. J. (Key No. 457)**

Safe-T-Aire Fixtures

The new Safe-T-Aire germicidal fixtures anounced by Hanovia have been designed especially for use in institutions and other buildings where people gather and congestion results. Equipped with the most modern Hanovia Ultra-Violet Lamps, the units are designed to destroy air-borne bacteria, to prevent contamination of foods, drugs and other products in use or storage, either in

refrigerators or under room temperatures, and are approved by the Underwriters' Laboratories.

The new fixture is available in either the ceiling suspension model illustrated or a wall model and has a trough dimension approximately 43 inches long, 12 inches wide and 7½ inches high. Complete with 30 inch tube, the fixture operates on 120 volts, 60 cycle A.C. **Hanovia Chemical & Mfg. Co., Dept. CUB, Newark 5, N. J. (Key No. 458)**

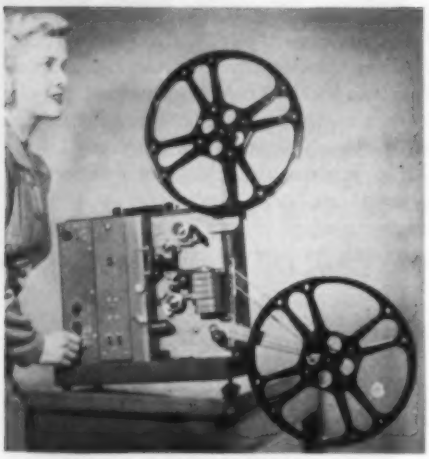
Film Splicer

The new film splicer announced by the Bolsey Corporation for both 16 mm. and 8 mm. film utilizes stainless steel throughout. Being corrosion resistant, the stainless steel does not chip and is not attacked by the cement. Consequently, the cutting edges remain sharp and the splicer can be kept clean with ease. Patented grooves prevent the cement "creeping" away from the splice.

The cutting edge of the scraper is a replica of a machine tool file, a multitude of tiny blades smoothly shaving the emulsion from the film. Both edges of the film are cut simultaneously and accurately. Two screws permit speedy reversal or complete turning over of this file and thus provide three reserve scraping surfaces. The top plates open completely so that the film can be threaded or lifted easily.

The splicer is mounted on a solid and smoothly finished wooden base with rubber feet that prevent slipping. Mounting holes are provided should it be desirable to mount the splicer permanently on a table. **The Bolsey Corporation of America, Dept. CUB, 118 E. 25th St., New York 10. (Key No. 459)**

RCA "400" Projector



The new postwar RCA 16 mm. sound motion picture projector offers several new operational features. It is lighter in weight than the previous standard size and is available in two models, one providing both sound and silent speeds, the other sound speed only.

The new "400" projector is smaller in size, due to the new "L" shaped amplifier mounting. The new tilt-wheel permits rapid raising and lowering of the projector by fingertip operation of a small dial. The "theatrical type" framing adjusts the position of the film in the gate without moving the aperture plate. Rewind of film is an automatic operation and does not require changing reels, and the RCA "even tension" take-up has been further improved in this new model.

Changeover from sound to silent speed in the sound-silent model is accomplished by simply turning a knob and the cooling system in the unit needs no adjustment since the changeover merely shifts the drive belt from one pulley to another and the motor speed remains the same.

The newly designed four-stage amplifier delivers a full 10 watt output and the "400" speaker has a new design and is engineered to deliver an optimum of high quality sound reproduction regardless of speaker location. The projector and speaker cases have a new sprayed-on plastic finish with seamless rounded corners. **Radio Corporation of America, RCA Victor Div., Dept. CUB, Camden, N. J. (Key No. 460)**

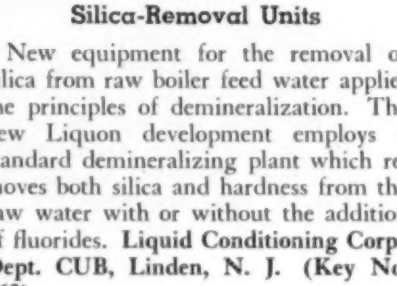
Weed Killer

Weed-No-More "40" is a new, highly concentrated weed killer designed for large turf areas. The college with extensive grounds to maintain will find it a great help in keeping the lawns attractive and free from weeds. The product is a butyl ester of 2,4-D in a liquid concentrate which mixes with either water or oil producing a chemical which kills or controls broad leaf weeds but is harmless to grasses. It is available in 1 and 5 gallon cans and in 55 gallon drums and is applied by spraying. **The Sherwin-Williams Co., Dept. CUB, Cleveland 1, Ohio. (Key No. 461)**

Silica-Removal Units

New equipment for the removal of silica from raw boiler feed water applies the principles of demineralization. The new Liquon development employs a standard demineralizing plant which removes both silica and hardness from the raw water with or without the addition of fluorides. **Liquid Conditioning Corp., Dept. CUB, Linden, N. J. (Key No. 462)**

Brain Model



A new life size model of the brain, for teaching purposes, is dissectible into six parts. Each part is completely lettered for identification. All parts of the brain can be studied in connection with each other, including the pineal gland and the optic thalamus. **Denoyer-Geppert Co., Dept. CUB, 5235 Ravenswood Ave., Chicago 40. (Key No. 463)**

G-E Germicidal Unit

Two types of germicidal ultraviolet units have been developed by General Electric X-Ray Corporation for the protection of students and teaching personnel. Both the 15 watt and the 30 watt capacity types use the G-E germicidal lamp which is contained in a fixture constructed to produce a beam of maximum intensity in a direction to provide the most satisfactory distribution while protecting room occupants from direct radiation. The unit has a reflector of polished aluminum and is louvered to restrict most of the germicidal energy to the desired zone. **General Electric X-Ray Corp., Dept. CUB, 175 W. Jackson Blvd., Chicago 4. (Key No. 464)**

New Package for Downyflake Mixes

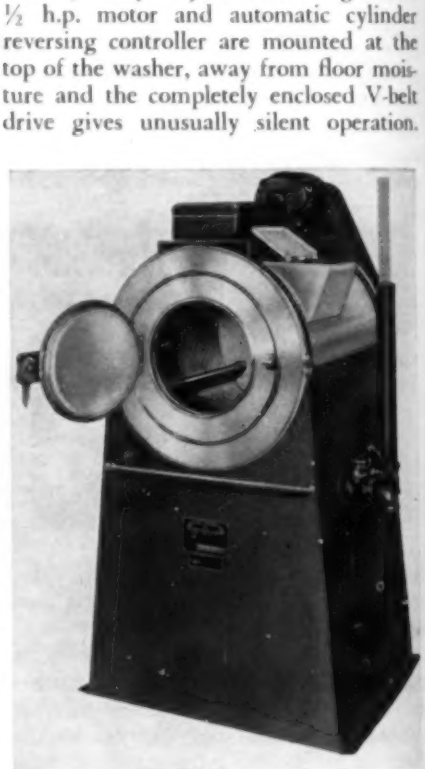
All twelve Downyflake Baking Mixes are now packed in new containers, each holding exactly five pounds of mix. The change was made to facilitate use in recipes without weighing and for convenient handling and storage.

The package itself is newly designed. Each container has an outer bag of multi-walled paper that has been tested for extra strength and resistance to tearing. The inner liner or bag is greaseproof, siftproof and moistureproof. **Doughnut Corp. of America, Dept. CUB, 393 Seventh Ave., New York 1. (Key No. 465)**

Cascade Washer

The new 2225 Norwood Cascade Front-Loading Washer is designed to handle small "rush lots" of laundry, thus saving operation of the large washers, and for fast, economical washing of any load up to 25 pounds dry weight. It can also be used effectively for quick, safe washing of blankets, curtains and other fabrics requiring special care.

The 22 inch diameter cylinder has closely-spaced, double-embossed perforations which allow maximum circulation and penetration of washing solution through the load. The tub and cylinder are constructed of polished Monel metal, electro-therm welded for rigid strength and the cylinder gudgeon is mounted in double, heavy-duty roller bearings. The ½ h.p. motor and automatic cylinder reversing controller are mounted at the top of the washer, away from floor moisture and the completely enclosed V-belt drive gives unusually silent operation.



The American Laundry Machinery Co., Dept. CUB, Cincinnati 12, Ohio. (Key No. 466)

Hone for Pencil Sharpeners

The Dillon E-Z Hone is designed to renew the blades on pencil sharpeners and thus increase their life and efficiency. The Hone sharpens by simply being inserted into the sharpener like a pencil and the crank turned, several times, in reverse.

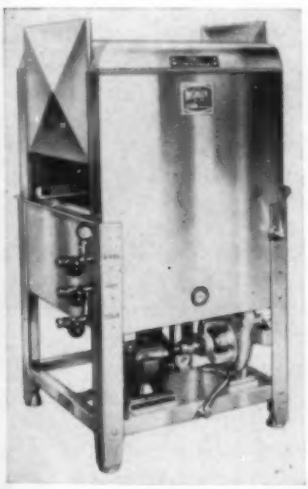
Made of fine heat-treated steel, the E-Z Hone has a red catalyn handle and comes in a leather carrying case. **W. C. Dillon & Co., Dept. CUB, 5410 W. Harrison St., Chicago 44. (Key No. 467)**

Commodore Dishwashing Machine

New mechanical and construction features of the Commodore, door-type dishwashing machine, include a packless ball bearing pump provided with carbon seal and a precision-ground stainless steel shaft on which is mounted an all-bronze balanced impeller. The pump is based on the engineering principles employed in an automobile water pump which is designed for years of service without attention.

The rigid and shock-absorbent door construction, permitting the greatest ease in sliding doors up and down, is another new feature. Designed to provide service for approximately 150 to 300 persons per meal, the Commodore can be operated from either the right or the left and occupies 28 by 30 inches of floor space. Spray sterilization is provided through stainless steel nozzles and both wash and rinse manifolds are easily removed for cleaning.

The new model also features quick opening drain valve, direct action thermometer, adjustable legs, easily removable scrap screens and a new funnel



type skimmer overflow for the removal of fatty substances from the water surface. **Insinger Machine Co., Dept. CUB, 6245 State Rd., Philadelphia 35, Pa. (Key No. 468)**

Torpedo Insecticide Spray Gun

The Torpedo Aerosol Spray Gun employs super heated steam as a vehicle for propelling minute aerosol particles of concentrated insecticide or germicide into the atmosphere. This precision built applicator operates at about 60 pounds of pressure which is maintained constant through means of a patented automatic loading valve which is fully automatic and assures steady performance even if there should be a pressure fluctuation. Safety features provide protection in case of improper use or negligence.

Equipped with a two way aspirator nozzle, the Torpedo can deliver either a very fine aerosol or a coarse aerosol mist by the simple shifting of a small lever. The high operation pressure makes it possible to force insecticide in large quantities into normally inaccessible areas and there is no streaking or dampness of the area in front of the nozzle because of the fine particle size of the insecticide as it comes from the gun.

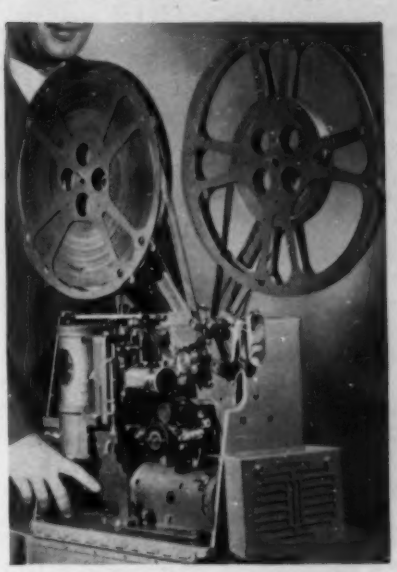
One loading of the Torpedo is designed to permeate 1,600,000 cubic feet of space.

The operating mechanism is enclosed in a heavy gauge, die formed, aluminum shell, treated to prevent abrasion and corrosion. The brilliant, lustrous finish is available in maroon and silver or emerald and silver. The carrying handle is of Plexiglass as are the supports. A pilot lamp illuminates the handle and the unit is simple in operation. It requires 115 volts AC or DC. **Sanitary Aids Co., Dept. CUB, Lock Drawer 508, St. Louis 3, Mo. (Key No. 469)**

Plasti Asphalt Tile Renewer

AT-50 Plasti Asphalt Tile Renewer has been developed as a rejuvenator for worn asphalt tile floors. It is a clear plastic resin coating which restores the surface and original beauty of worn, porous asphalt tile flooring. It dries within two hours to a 75 per cent gloss that provides a tough finish designed to withstand heavy foot traffic and wear. Containing no wax, varnish or shellac, the product does not soften, smear or warp the tile. It is easy to clean or wax and can be renewed when necessary. **Duro Industries, Dept. CUB, 502 S. Canal St., Chicago 7. (Key No. 470)**

Victor "Lite-Weight" Projector



The new Victor "Lite-Weight" 16 mm. sound motion picture projector is designed especially for use in any classroom, in special training or entertainment programs and in the home. It is considerably lighter in weight and smaller in size than the standard units, thus adding to the ease of transporting it for use wherever needed. A feature of the new unit is the fact that it is housed in a streamlined single unit aluminum case. The case is of unique design for 16 mm. sound motion picture equipment as the demountable speaker fits inside the projector case for carrying purposes and is mounted on the front of the projector during operation.

In the individual classroom the new design and light weight of the unit make it easily carried by a female teacher or a student operator. The amplifier is designed for classroom, home or conference room.

The new unit has the clutch-controlled rewind and the Instantilt features introduced by Victor, has reverse operation and will accommodate either sound or silent film at their respective speeds. It incorporates the safety film trip and the 180 degree swing-out lens, framing screw adjustment, spira-draft lamphouse and the duo-flexo pawls. The 750 watt illumination is standard and the top-mounted reel arms will accommodate 2000 foot reels. **Victor Animatograph Corp., Dept. CUB, Davenport, Iowa. (Key No. 471)**

Cory Serving Decanter

The new Cory Model CDA glass coffee serving decanter is full twelve cup capacity and features a newly designed pouring lip and steady plastic handle. **Cory Corp., Dept. CUB, 221 N. La Salle St., Chicago 1, Ill. (Key No. 472)**

RECENT CATALOGS AND BOOKLETS

• The complete line of Bradley Washfountains, Multi-Stall Showers and Drinking Fountains is covered in the new 24 page **Catalog No. 4701** issued by the Bradley Washfountain Co., N. 22nd and W. Michigan Sts., Milwaukee 1, Wis. The booklet also contains information on the new two-person Bradley Duo Washfountain and the redesigned stainless steel and enameled iron washfountains. Specification data and washroom planning suggestions are included, together with notes on improved sanitation and reductions in maintenance and installation costs. **(Key No. 473)**

• **"100 Years of Service"** of the John Van Range Co., Fifth & Butler, Cincinnati 2, Ohio, has been commemorated in a special catalog. This 60 page booklet, with board covers, gives full information on the food service equipment manufactured by this company with illustrations showing cafeteria installations. Detailed information on the construction of the equipment and some interesting historical data on the company complete this book. **(Key No. 474)**

• Grease interception is an important problem to the college administrator and his maintenance staff. A pamphlet giving detailed information on this subject has been issued by Wade Mfg. Co., Elgin, Ill., entitled **"A New Principle in Grease Interception."** Administrators, engineers and those responsible for planning and maintenance should find this helpful and informative. **(Key No. 475)**

• **"45 Years of Progress in Lighting"** is the title of an attractive booklet issued by Benjamin Electric Mfg. Co., Des Plaines, Ill., describing the new Benjamin Laboratory dedicated to the science and art of illumination. **(Key No. 476)**

• The new **GoldE 1000 watt double blower cooled all-purpose projector** for slides and filmstrip is fully described in Bulletin No. 473 issued by GoldE Mfg. Co., 1220 W. Madison St., Chicago 7. It gives details on the use of this projector for 2 by 2, 2¼ by 2¼, 2¼ by 3¼ and 3¼ by 4 inch slides and for single or double frame 33 mm. filmstrip in color or black and white. **(Key No. 477)**

• Because of the almost universal use of coffee, the Pan American Coffee Bureau, 120 Wall St., New York 5, has prepared a folder entitled **"Coffee, a Little Word On Your Menu."** Helpful information on coffee is offered—how to make good coffee, care of the urn, use of glass vacuum coffee makers, iced coffee and general data. **(Key No. 478)**

• Dietitians, home economics teachers, chefs, cooks and others concerned with food problems will be interested in the booklet issued by Cling Peach Advisory Board, 260 California St., San Francisco 11, Calif. Entitled, **"How Famous California Chefs Use Canned Cling Peaches,"** the booklet contains a variety of special recipes using peaches in salads, desserts, cakes, pies, fruit cocktail, breakfast service, as garnishes and in fritters and omelets. The first page begins, "You helped write this book . . ." and the booklet continues with the special recipes of well-known California chefs. **(Key No. 479)**

• **"Nairn Linoleum"** and **"Nairn Marine Deck Covering"** are the subjects of recently published booklets giving detailed information on these two products of Congoleum-Nairn Inc., Kearny, N. J. The catalog on Nairn Linoleum for floors and walls contains data on product uses and specifications and has sample color pages of all available colors in the various wall and floor coverings made by the company. Detailed information on the new Nairn Marine Deck Covering, the heavy duty material for floors, is given in the second folder. **(Key No. 480)**

• **Bulletin 106-A, "Dorex Activated Carbon Air Recovery Panels,"** offers complete data on the design, construction, function and application of these units to purify air, improve ventilation, save cooling and heating. A performance chart which provides all data necessary for proper panel selection with capacities at various resistance, fresh air percentages and approximate hours of service life for each type, size and series of panel is included in this bulletin issued by W. B. Connor Engineering Corp., 114 E. 32nd St., New York 16. **(Key No. 481)**

• **"Rusco All-Metal Venetian Awnings and Jalousies"** are illustrated and described in a pamphlet issued by the F. C. Russell Co., 6400 Herman Ave., Cleveland 15, Ohio. Various uses for these protective awnings for shade efficiency and coolness, clear visibility and light control are shown in photographs of actual use. The awnings are permanently installed, conveniently controlled from inside, of sturdy, rust resisting construction and are available in nine standard colors. **(Key No. 482)**

• A 32 page catalog and price list on **"Changeable Letter Signs"** has been issued by Bulletin Boards & Directory Products, Inc., 724 Broadway, New York 3. The catalog is indexed and includes all types of changeable letter boards with a special section on menu boards. **(Key No. 483)**

Manufacturers' Plant News

Neumade Products Corp., 427 W. 42nd St., New York 18, has been appointed sole and exclusive distributor of the lifetime Griswold splicer for 8 mm., 16 mm. and 35 mm. film, both silent and sound.

Bell & Howell Co., 7100 McCormick Rd., Chicago 45, announces the purchase of the Microfilm Recording Co. of Chicago on August 1. Bell & Howell's microfilm sales, service and repair departments and processing laboratories have been moved to the Microfilm Recording Company quarters at 221 N. La Salle St., Chicago. All microfilm equipment manufactured and sold by Bell & Howell will be marketed under the trade name, "Micro-Filmo."

The American Stove Co., 4301 Perkins Ave., Cleveland 3, Ohio, purchased a former war production facility plant, complete with machinery, in 1946. The plant has been converted to the manufacture of Magic Chef heavy duty gas cooking equipment and is designed and equipped to produce at a rate of between two and three times that of prewar production schedules. The new headquarters are located at 3201 Harvard Ave., Cleveland.

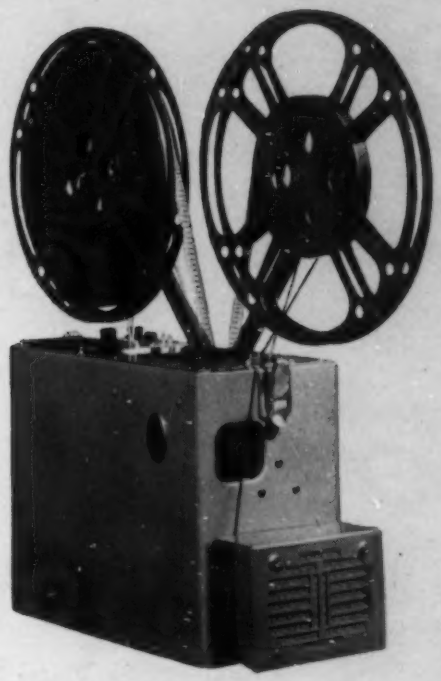
The General Detroit Corp., 2200 E. Jefferson Ave., Detroit 7, Mich., announces a change in name for the complete line of General portable fire extinguishers. The new name, Quick Aid Fire Guard, will be applied to all types of portable fire extinguishers manufactured by the company and its subsidiaries. This name replaces the brand names of S.O.S. Fire Guard, CD-Sno Fog, Red Star, Hi-Test, Floafome, Alaskan, Protector and Pacemaker.

Varlar, Inc., a division of **United Wallpaper, Inc., Merchandise Mart, Chicago 54,** announces that the new stainproof wall covering, Varlar, is now in production in its new manufacturing plant in Aurora, Ill. This plant is the first unit of the new United Wallpaper plant to be in operation and was designed and built exclusively for the production of Varlar. A yearly capacity of 35,000,000 square feet of wall covering is expected as a result of opening the new plant.

A building program to expand its facilities has been announced by the **Dixie Cup Co., Easton, Pa.** The plant at Easton has added a new four story wing increasing its capacity by 25 per cent. The plant of the Individual Drinking Cup Co., maker of Dixie and Vortex cups, at Darlington, S. C., is doubled in size.

VICTOR
REG. U.S. PAT. OFF.
16 MM

Announcing the new VICTOR "LITE-WEIGHT"



- SINGLE UNIT CASE
- 52% LIGHTER IN WEIGHT
- 69% SMALLER IN SIZE
- ECONOMICALLY PRICED

16mm Sound Motion Picture Projector

AGAIN VICTOR SUPREMACY IS ACKNOWLEDGED with the announcement of the amazing new "Lite-Weight". Encased in aluminum, its portability, versatility and economy stand unchallenged in the 16mm field. Truly the "Lite-Weight" marks a most momentous step in Victor's years of progress in the development of a compact sound motion picture projector for the home, school, church and industry. Write for details today.

Victor Animatograph Corporation

A DIVISION OF CURTISS-WRIGHT CORPORATION
Dept. V. Home Office and Factory: Davenport, Iowa
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"New Walkaway Portability"

AN ASTONISHING *Variety*

With this tempting array of olives, pickles and relish your meal is off to a good start. Best of all it will be remembered by your guest long after. Little extras like these bring the public back to you just as you return to Sexton for them. Since variety adds so much to the appeal of your relish dish you will be interested in the unmatched assortment we offer.

Good food for pleased guests

Sexton
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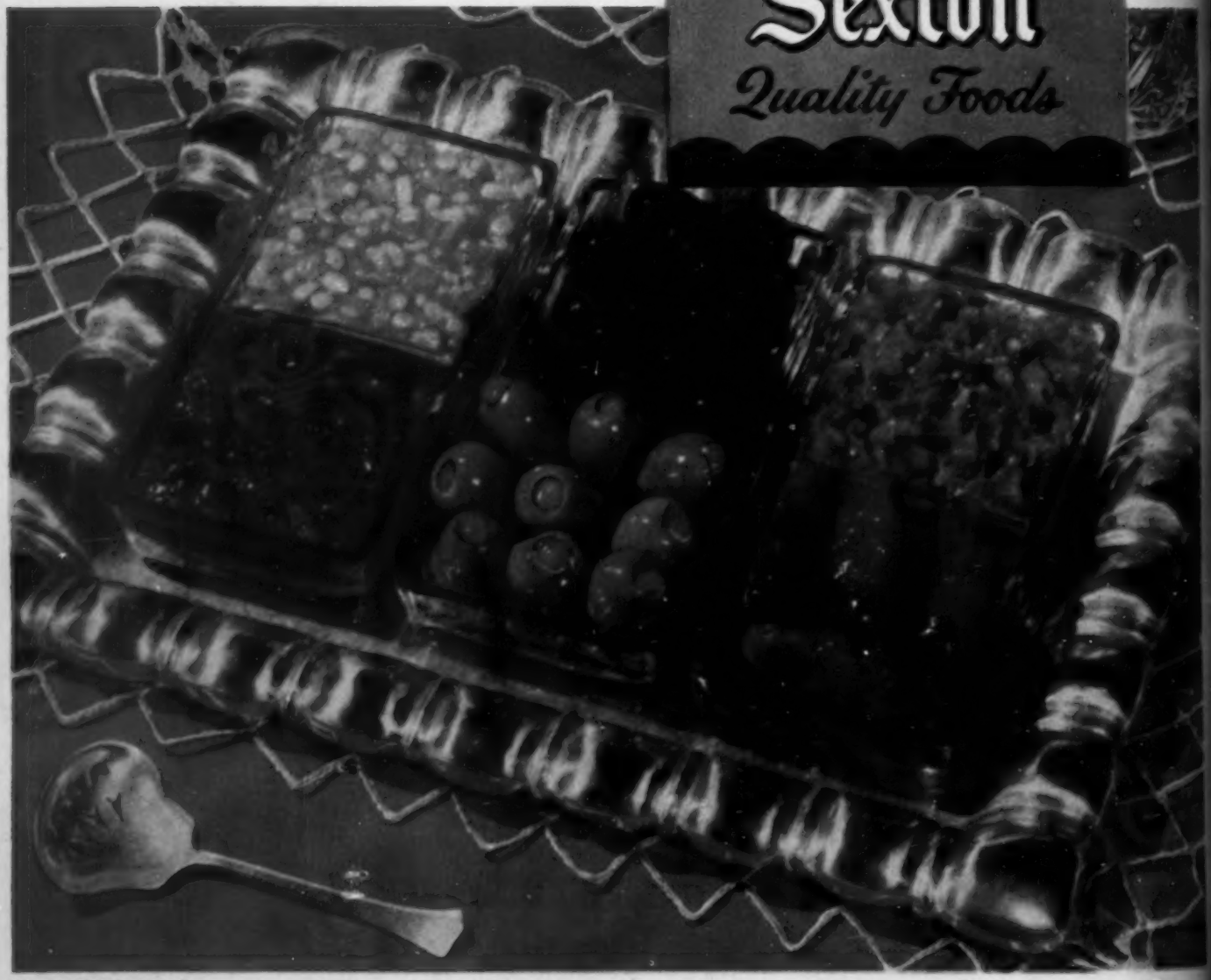

JOHN SEXTON & CO. 1947